HISTORY

OF THE

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EARTH,

AND

ANIMATED NATURE.

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AN HISTORY OF ANIMALS.

CHAP. I.

Of Ruminating Animals.

OF all animals, thoſe that chew the cud are the moſt harmleſs, and the moſt eaſily tamed. As they live entirely upon vegetables, it is neither their intereſt nor their pleaſure to make war upon the reſt of the brute creation; content with the paſtures where they are placed, they ſeldom deſire to change, while they are furniſhed with a proper ſupply; and fearing nothing from each other, they generally go in herds for their mutual ſecurity. All the fierceſt of the carnivorous kinds ſeek their food

in gloomy ſolitude; theſe, on the con-
range together; the very m[illegible]eſt of the[illegible]
found to unite in each other['s] defence;
the hare itſelf is a gregarious animal, in thoſe countries where it has no other enemies but the beaſts of the foreſt to guard againſt.

As the food of ruminant animals is entirely of the vegetable kind, and [illegible] is very eaſily procured, so theſe animals ſeem naturally more indolent and leſs artful than thoſe of the carnivorous kinds; and as their appetites are more ſimple, their inſtincts ſeem to be leſs capable of variation. The fox or the wolf are for ever prowling; their long habits of want give them a degree of ſharpneſs and cunning; their life is a continued ſcene of ſtratagem and eſcape: but the patient ox, or the deer, enjoy the repaſt that Nature has abundantly provided; certain of ſubſiſtence, and content with ſecurity.

As Nature has furniſhed theſe animals with an appetite for ſuch coarſe and ſimple nutriment, ſo ſhe has enlarged the capacity of the inteſtines, to take in a greater ſupply. In the carnivorous kinds, as their food is nouriſhing and juicy, their ſtomachs are but ſmall, and their inteſtines ſhort; but in theſe, whoſe paſture is coarſe, and where much muſt be accumulated before any quantity of nouriſhment

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can be obtained, their ſtomachs are large and numerous, and their inteſtines long and muſcular. The bowels of a ruminating animal may be conſidered as an elaboratory, with veſſels in it, fitted for various tranſmutations. It requires a long and tedious proceſs before graſs can be tranſmuted into fleſh; and for this purpoſe Nature, in general, has furniſhed ſuch animals as feed upon graſs, with four ſtomachs, through which the food ſucceſſively paſſes, and undergoes the proper ſeparations.

Of the four ſtomachs with which ruminant animals are furniſhed, the firſt is called the paunch, which receives the food after it has been ſlightly chewed; the ſecond is called the honeycomb, and is properly nothing more than a continuation of the former; theſe two, which are very capacious, the animal fills as faſt as it can, and then lies down to ruminate, which may be properly conſidered as a kind of vomiting without effort or pain. The two ſtomachs above mentioned being filled with as much as they can contain, and the graſs, which was ſlightly chewed, beginning to ſwell with the heat of the ſituation, it dilates the ſtomachs, and theſe again contract upon their contents. The aliment, thus ſqueezed, has but two paſſages to eſcape at; one into the third ſtomach,

which is very narrow; and the other back, by the gullet, into the mouth, which is wider. The greateſt quantity, therefore, is driven back through the largeſt aperture into the mouth, to be chewed a ſecond time, while a ſmall part, and that only the moſt liquid, is driven into the third ſtomach, through the orifice which is ſo ſmall. The food which is driven to the mouth, and chewed a ſecond time, is thus rendered more ſoft and moiſt, and becomes at laſt liquid enough to paſs into the conduit that goes to the third ſtomach, where it undergoes a ſtill farther comminution. In this ſtomach, which is called the manyfold, from the number of its leaves, all which tend to promote digeſtion, the graſs has the appearance of boiled ſpinage, but not yet ſufficiently reduced, ſo as to make a part of the animal's nouriſhment: it requires the operation of the fourth ſtomach for this purpoſe, where it undergoes a complete maceration, and is ſeparated to be turned into chyle.

But Nature has not been leſs careful in another reſpect, in fitting the inteſtines of theſe animals for their food. In the carnivorous kinds they are thin and lean; but in ruminating animals they are ſtrong, fleſhy, and well covered with fat. Every precaution ſeems taken that

can help their digeſtion: their ſtomach is ſtrong and muſcular, the more readily to act upon its contents; their inteſtines are lined with fat, the better to preſerve their warmth; and they are extended to a much greater length, ſo as to extract every part of that nouriſhment which their vegetable food ſo ſcantily ſupplies.

In this manner are all quadrupedes of the cow, the ſheep, or the deer kind, ſeen to ruminate; being thus furniſhed with four ſtomachs, for the macerating of their food. Theſe, therefore, may moſt properly be called the ruminant kinds; although there are many others that have this quality in a leſs obſervable degree. The rhinoceros, the camel, the horſe, the rabbit, the marmotte, and the ſquirrel, all chew the cud by intervals, although they are not furniſhed with ſtomachs like the former. But not theſe alone, there are numberleſs other animals that appear to ruminate; not only birds, but fiſhes, and inſects. Among birds are the pelican, the ſtork, the heron, the pigeon, and the turtle; theſe have a power of diſgorging their food to feed their young. Among fiſhes are lobſters, crabs, and that fiſh called the dorado. The ſalmon alſo is ſaid to be of this number: and, if we may believe Ovid, the

ſcarus likewiſe, of which he ſays*:

> Of all the fiſh that graze beneath the flood,
> He only ruminates his former food.

Of inſects, the ruminating tribe is ſtill larger: the mole, the cricket, the waſp, the drone, the bee, the graſhopper, and the beetle. All theſe animals either actually chew the cud, or ſeem at leaſt to ruminate. They have the ſtomach compoſed of muſcular fibres, by means whereof the food is ground up and down, in the ſame manner as in thoſe which are particularly diſtinguiſhed by the appellation of ruminants.

But not theſe alone; men themſelves have been often known to ruminate, and ſome even with pleaſure. The accounts of theſe calamities, for ſuch I muſt conſider them, incident to our fellow-creatures, are not very pleaſant to read; yet I muſt tranſcribe a ſhort one, as given us by Slare, in the Philoſophical Tranſactions, as it may in ſome meaſure ſhew the ſatisfaction which the lower tribes of animals enjoy while they ruminate. The man in queſtion was a citizen of Briſtol, of about twenty years of age, and, what ſeemed more extraordinary ſtill, of a ruminating family, for

* At contra herboſa piſces laxantar arena,
Ut ſcarus epaſtas ſolus qui ruminat eſcas.

his father was frequently ſubject to the ſame infirmity, or amuſement, as he himſelf perhaps would call it. This young man uſually began to chew his meat over again within about a quarter of an hour after eating. His ruminating after a full meal generally laſted about an hour and an half; nor could he ſleep until this taſk was performed. The victuals, upon the return, taſted even more pleaſantly than at firſt; and returned as if they had been beaten up in a mortar. If he ate a variety of things, that which he ate firſt came up again firſt; and if this return was interrupted for any time, it produced ſickneſs and diſorder, and he was never well till it returned. Inſtances of this kind, however, are rare and accidental; and it is happy for mankind that they are ſo. Of all other animals, we ſpend the leaſt time in eating; this is one of the great diſtinctions between us and the brute creation; and eating is a pleaſure of ſo low a kind, that none but ſuch as are nearly allied to the quadrupede, deſire its prolongation.

CHAP. II.

Of Quadrupedes of the Cow Kind.

OF all ruminant animals, thoſe of the cow kind deſerve the firſt rank, both for their ſize, their beauty, and their ſervices. The horſe is more properly an animal belonging to the rich; the ſheep chiefly thrives in a flock, and requires attendance; but the cow is more eſpecially the poor man's pride, his riches, and his ſupport. There are many of our peaſantry that have no other poſſeſſion but a cow; and even of the advantages reſulting from this moſt uſeful creature, the poor are but the nominal poſſeſſors. Its fleſh they cannot pretend to taſte, ſince then their whole riches are at once deſtroyed; its calf they are obliged to fatten for ſale, ſince veal is a delicacy they could not make any pretenſions to; its very milk is wrought into butter and cheeſe for the tables of their maſters; while they have no ſhare even in their own poſſeſſion, but the choice of their market. I cannot bear to hear the rich crying out for liberty, while they thus ſtarve their fellow-creatures, and feed them up with an imaginary good, while they monopolize the real benefits of nature.

In thofe countries where the men are under better fubordination, this excellent animal is of more general advantage. In Germany, Poland, and Switzerland, every peafant keeps two or three cows, not for the benefit of his mafter, but for himfelf. The meaneft of the peafants there kills one cow at leaft for his own table, which he falts and hangs up, and thus preferves as a delicacy all the year round. There is fcarce a cottage in thofe countries that is not hung round with thefe marks of hofpitality; and which often make the owner better contented with hunger, fince he has it in his power to be luxurious when he thinks proper. A piece of beef hung up there, is confidered as an elegant piece of furniture, which, though feldom touched, at leaft argues the poffeffor's opulence and eafe. But it is very different, for fome years paft, in this country, where our lower ruftics at leaft are utterly unable to purchafe meat any part of the year, and by them even butter is confidered as an article of extravagance.

The climate and pafture of Great Britain, however, is excellently adapted to this animal's moderate nature; and the verdure and the fertility of our plains are perfectly fuited to the manner of its feeding; for wanting the upper fore teeth, it loves to graze in an high rich

paſture. This animal ſeems but little regardful of the quality of its food, provided it be ſupplied in ſufficient abundance; it makes no particular diſtinctions in the choice of its herbage, but indiſcriminately and haſtily devours the proper quantity. For this reaſon, in our paſtures, where the graſs is rather high than ſucculent, more flouriſhing than nutritious, the cow thrives admirably; and there is no part of Europe where the tame animal grows larger, yields more milk, or more readily fattens, than with us.

Our paſtures ſupply them with abundance, and they in return enrich the paſture; for, of all animals, the cow ſeems to give back more than it takes from the ſoil. The horſe and the ſheep are known, in a courſe of years, to impoveriſh the ground. The land where they have fed becomes weedy, and the vegetables coarſe and unpalatable: on the contrary, the paſture where the cow has been bred, acquires a finer ſofter ſurface, and becomes every year more beautiful and even. The reaſon is, that the horſe being furniſhed with fore teeth in the upper jaw, nips the graſs cloſely, and, therefore, only chuſes that which is the moſt delicate and tender; the ſheep alſo, though, with reſpect to its teeth, formed like the cow, only bites the moſt

ſucculent parts of the herbage: theſe animals, therefore, leave all the high weeds ſtanding; and while they cut the finer graſs too cloſely, ſuffer the ranker herbage to vegetate and over-run the paſture. But it is otherwiſe with the cow; as its teeth cannot come ſo cloſe to the ground as thoſe of the horſe, nor ſo readily as thoſe of the ſheep, which are leſs, it is obliged to feed upon the talleſt vegetables that offer; thus it eats them all down, and in time, levels the ſurface of the paſture.

The age of the cow is known by the teeth and horns. This animal is furniſhed with eight cutting teeth in the lower jaw; at the age of ten months, the two middlemoſt of theſe fall out, and are replaced by others, that are not ſo white, but broader; at the age of ſixteen months, the two next milk-white teeth fall out likewiſe, and others come up in their room: thus, at the end of every ſix months, the creature loſes and gains, till, at the age of three years, all the cutting teeth are renewed, and then they are long, pretty white and equal; but in proportion as the animal advances in years, they become irregular and black, their inequalities become ſmoother, and the animal leſs capable of chewing its food. Thus the cow often declines from

this ſingle cauſe; for, as it is obliged to eat a great deal to ſupport life, and as the ſmoothneſs of the teeth makes the difficulty of chewing great, a ſufficient quantity of food cannot be ſupplied to the ſtomach. Thus the poor animal ſinks in the midſt of plenty, and every year grows leaner and leaner, till it dies.

The horns are another, and a ſurer method of determining this animal's age. At three years old, it ſheds its horns, and new ones ariſe in their place, which continue as long as it lives; at four years of age, the cow has ſmall pointed neat ſmooth horns, thickeſt near the head; at five the horns become larger, and are marked round with the former year's growth. Thus, while the animal continues to live, the horns continue to lengthen; and every year a new ring is added at the root; ſo that allowing three years before their appearance, and then reckoning the number of rings, we have in both together the animal's age exactly.

As we have indiſputably the beſt breed of horned cattle of any in Europe, ſo it was not without the ſame aſſiduity that we came to excel in theſe, as in our horſes. The breed of cows has been entirely improved by a foreign mixture, properly adapted to ſupply the imperfections of our own. Such as are purely Britiſh,

are far inferior in ſize to thoſe of many parts of the continent; but thoſe which we have thus improved, by far excel all others. Our Lincolnſhire kind derive their ſize from the Holſtein breed; and the large hornleſs cattle that are bred in ſome parts of England came originally from Poland. We were once famous for a wild breed of theſe animals, but theſe have long ſince been worn out; and perhaps no kingdom in Europe can furniſh ſo few wild animals of all kinds, as our own. Cultivation and agriculture are ſure to baniſh theſe, wherever they are found; and every addition a country receives from art, drives away thoſe animals that are only fitted for a ſtate of nature.

Of all quadrupedes, the cow ſeems moſt liable to alteration from its paſture. In the different parts of our own country, we eaſily perceive the great varieties produced among theſe animals, by the richneſs or poverty of the ſoil. In ſome they grow to a great bulk; and I have ſeen an ox ſixteen hands high, which is taller than the general run of our horſes. In others, they appear as diminutive; being not ſo large as an aſs. The breed of the Iſle of Man, and moſt parts of Scotland, is much leſs in general than in England or Ireland: they are differently ſhaped alſo, the dewlap being much

ſmaller, and, as the expreſſion is, the beaſt has more of the ewe neck. This, till ſome years ago, was conſidered in cattle as a deformity; and the cow was choſen, according to Virgil's direction, with a large dewlap: however, at preſent it is the univerſal opinion, that the cow wants in udder what it has in neck, and the larger the dewlap, the ſmaller is the quantity of its milk. Our graziers now, therefore, endeavour to mix the two breeds; the large Holſtein with the ſmall northern; and from both reſults that fine milch breed, which excels the cattle of any other part of the world.

This difference, ariſing from paſture, is more obſervable in other countries than in our own. The cow kind is to be found in almoſt every part of the world, large in proportion to the richneſs of the paſture; and ſmall, as the animal is ſtinted in its food. Thus Africa is remarkable for the largeſt and the ſmalleſt cattle of this kind; as is alſo India, Poland, Switzerland, and ſeveral other parts of Europe. Among the Eluth Tartars, where the paſtures are remarkably rich and nouriſhing, the cow becomes ſo large, that he muſt be a tall man who can reach the tip of its ſhoulder. On the contrary, in France, where the animal is ſtinted in

its food, and driven from the most flourishing pastures, it greatly degenerates.

But the differences in the size of this animal are not so remarkable as those which are found in its form, its hair, and its horns. The difference is so very extraordinary in many of them, that they have been even considered as a different kind of creature, and names have been given them as a distinct species, when in reality they are all the same *. In this manner the urus and the bison have been considered, from the variety in their make, to be distinct in their production; but they are all in fact the descendants of one common stock, as they have that certain mark of unity, they breed and propagate among each other. Naturalists have therefore laboured under an obvious error, when, because of the extreme bulk of the urus, or because of the hump upon the back of the bison, they assigned them different places in the creation, and separated a class of animals which was really united. It is true, the horse and the ass do not differ so much in form, as the cow and the bison; nevertheless, the former are distinct animals, as their breed is marked with sterility; the latter are animals of the same kind, as their breed is fruitful, and a race of animals is produced, in

* Buffon, vol. xxiii. p. 78.

which the hump belonging to the biſon is ſoon worn away. The differences, therefore, between the cow, the urus, and the biſon, are merely accidental. The ſame caprice in nature that has given horns to ſome cows, and denied them to others, may alſo have given the biſon an hump, or encreaſed the bulk of the urus; it may have given the one a mane, or denied a ſufficiency of hair to the other.

But before we proceed farther, it may be proper to deſcribe theſe varieties, which have been thus taken for diſtinct kinds*. The urus, or wild bull, is chiefly to be met with in the province of Lithuania; and grows to a ſize, that ſcarce any other animal, except the elephant, is found to equal. It is quite black, except a ſtripe mixed with white, that runs from the neck to the tail, along the top of the back; the horns are ſhort, thick and ſtrong; the eyes are fierce and fiery; the forehead is adorned with a kind of garland of black curled hair, and ſome of them are found to have beards of the ſame; the neck is ſhort and ſtrong, and the ſkin has an odour of muſk. The female, though not ſo big as the male, exceeds the largeſt of our bulls in ſize; nevertheleſs, her udder and teats are ſo ſmall, that they can ſcarcely be

* This deſcription is chiefly taken from Klein.

per-

De Seve del. Is. Taylor sculp.

The Bison.

perceived. Upon the whole, however, this animal resembles the same one very exactly, except some trifling varieties, which his state of wildness, or the richness of the pastures where he is found, may easily have produced.

The bison, which is another variety of the cow kind, differs from the rest, in having a lump between its shoulders. These animals are of various kinds; some very large, others as diminutively little. In general, to regard this animal's fore parts, he has somewhat the look of a lion, with a long shaggy mane, and a beard under his chin; his head is little, his eyes red and fiery, with a furious look; the forehead is large, and the horns so big, and so far asunder, that three men might often sit between them. On the middle of the back there grows a bunch almost as high as that of a camel, covered with hair, and which is considered as a great delicacy by those that hunt him. There is no pursuing him with safety, except in forests where there are trees large enough to hide the hunters. He is generally taken by pit falls; the inhabitants of those countries where he is found wild, digging holes in the ground, and covering them over with boughs of trees and grass; then provoking the bison to pursue them, they get on the opposite side of the pit-fall, while the furious

animal, running head[illegible]t, falls into the pit prepared for him, and is there quickly overcome and ſlain.

Beſides theſe real diſtinctions in the cow kind, there have been many others made, that appear to be in name only. Thus the bonaſus, of which naturaliſts have given us long deſcriptions, is ſuppoſed by Klein and Buffon to be no more than another name for the biſon, as the deſcriptions given of them by the ancients coincide. The bubalus alſo of the ancients, which ſome have ſuppoſed to belong to the cow kind, Buffon places among the lower claſs of ruminant quadrupedes, as it moſt reſembles them in ſize, ſhape, and the figure of its horns. Of all the varieties, therefore, of the cow kind, there are but two that are really diſtinct; namely, the cow, and the buffalo: theſe two are ſeparated by nature; they ſeem to bear an antipathy to each other; they avoid each other, and may be conſidered as much removed as the horſe is from the aſs or the zebra. When, therefore, we have deſcribed the varieties of the cow kind, we ſhall paſs on to the buffalo, which being a different animal, requires a ſeparate hiſtory.

There is ſcarce a part of the world, as was ſaid before, in which the cow is not found in

ſome one of its varieti... large, like the ...rus, or humped as t... h ſtrait horns, or ben... ..., inverted ... turning ſide-ways to the cheek, li... the ram; and, in many countries, th... ound without any horns whatſoever. B... re particular, beginning at the north... w kine which ſubſiſt in Iceland are wit... horns, although of the ſame race original... with ours. The ſize of theſe is rather rela... the goodneſs of the paſture, than the warm... or coldneſs of the climate. The Dutch frequently bring great quantities of lean cattle from Denmark, which they fatten on their own rich grounds. Theſe are in general of a larger ſize than their own natural breed; and they fatten very eaſily. The cattle of the Ukraine, where the paſture is excellent, become very fat, and are conſidered as one of the largeſt breeds of Europe. In Switzerland, where the mountains are covered with a rich nouriſhing herbage, which is entirely reſerved for their kine, theſe animals grow to a very large ſize. On the contrary, in France, where they get no other graſs but what is thought unfit for horſes, they dwindle, and grow lean. In ſome parts of Spain, the cow grows to a good ſize; thoſe wild bulls, however, which they pride themſelves ſo much in

combating, ar[illegible] mear despicable little animal, and [illegible]aped like one of our cows, with [illegible]t peculiar [illegible]ess of aspect for w[illegible]s are remarkable. In Barbary, and t[illegible]res of Africa, where the ground i[illegible] the pasturage short, the cows are of [illegible]all breed, and give milk in proportion. [illegible]he contrary, in Ethiopia, they are of a p[illegible]gious bigness. The same holds in Per[illegible] Tartary; where, in some places, they [illegible]very small, and, in others, of an amazing stature. It is thus, in almost every part of the world, this animal is found to correspond in size to the quantity of its provision.

If we examine the form of these animals, as they are found tame, in different regions, we shall find, that the breed of the urus, or those without an hump, chiefly occupies the cold and the temperate zones, and is not so much dispersed towards the south. On the contrary, the breed of the bison, or the animal with an hump, is found in all the southern parts of the world; throughout the vast continent of India; throughout Africa, from Mount Atlas to the Cape of Good Hope. In all these countries, the bison seems chiefly to prevail; where they are found to have a smooth soft hair, are

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are their fellow-domeſtics, the companions of their pleaſures and fatigues; the cow is at once the Hottentot's protector and ſervant, aſſiſts him in attending his flocks, and guarding them againſt every invader; while the ſheep are grazing, the faithful backely, as this kind of cow is called, ſtands or grazes beſide them: ſtill, however, attentive to the looks of its maſter, the backely flies round the field, herds in the ſheep at their ſtraying, obliges them to keep within proper limits, and ſhews no mercy to robbers, or even ſtrangers, who attempt to plunder. But it is not the plunderers of the flock alone, but even the enemies of the nation, that theſe backelys are taught to combat. Every army of Hottentots is furniſhed with a

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...ely lives in the same cottage,
...d, by long habit, gains an
...; and in proportion as the man approaches to the brute, so the brute seems to attain even to some share of human sagacity. The Hottentot and his backely thus mutually assist each other; and when the latter happens to die, a new one is chosen to succeed him, by a council of the old men of the village. The new brackely is then joined with one of the veterans of his own kind, from whom he learns his art, becomes social and diligent, and is taken for life into human friendship and protection.

The bisons, or cows with an hump, are found to differ very much from each other in the several parts of the world where they are found. The wild ones of this kind, as with us, are much larger than the tame. Some have horns, and some are without any; some

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a lion than a [illegible] fit it more [illegible]r a state of war with man [illegible] a state of servitude. Yet, notwith[illegible]ese appearances, both animals are fo[illegible]he same; or at least [illegible] nearly allied, th[illegible]eed among each other, and propagate a [illegible]t continues the kind.

On the other hand, [illegible] we compare the buffalo with our common cow, no two animals can be more nearly alike, either in their form or their nature; both equally submissive to the yoke, both often living under the same roof, and employed in the same domestic services; the make and the turn of their bodies so much alike, that it requires a close attention to distinguish them: and yet, after all this, no two animals can be more distinct, or seem to have stronger antipathies to each other*. Were there but one of each kind remaining, it is probable the race of both would shortly be extinct. However, such is the fixed aversion formed between these creatures, that the cow refuses to breed with the buffalo, which it nearly resembles; while it is known to propagate with the bison, to which it has, in point of form, but a very distant similitude.

The buffalo is, upon the whole, by no means so beautiful a creature as the cow; his figure

* Buffon.

is more clumsy and aukward; his air is wilder; and he carries his head lower, and nearer the ground; his limbs are less fleshy, and his tail more naked of hair; his body is shorter and thicker than that of the cow kind; his legs are higher; his head smaller, his horns not so round, black, and compressed, with a bunch of curled hair hanging down between them; his skin is also harder and thicker, more black, and less furnished with hair; his flesh, which is hard and blackish, is not only disagreeable to the taste, but likewise to the smell. The milk of the female is by no means so good as that of the cow; it is however produced in great abundance. In the warm countries, almost all their cheese is made of the milk of the buffalo; and they supply butter also in large quantities. The veal of the young buffalo is not better eating than the beef of the old. The hide of this animal seems to be the most valuable thing he furnishes. The leather made of it is well known for its thickness, softness, and impenetrability. As these animals are, in general, larger and stronger than the cow, they are usefully employed in agriculture. They are used in drawing burthens, and sometimes in carrying them; being guided by a ring, which is thrust through their nose. Two buffaloes yoaked in a

waggon are ſaid to draw more than four ſtrong horſes; as their heads and necks are naturally bent downward, they are thus better fitted for the draught, and the whole weight of their bodies is applied to the carriage that is to be drawn forward.

From the ſize and bulk of the buffalo, we may be eaſily led to conclude that he is a native of the warmer climates. The largeſt quadrupedes are generally found in the torrid zone; and the buffalo is inferior, in point of ſize, only to the elephant, the rhinoceros, or the hippopotamus. The camelopard, or the camel, may, indeed, be taller, but they are neither ſo long, or near ſo corpulent. Accordingly, we find this animal wild in many parts of India; and tamed alſo wherever the natives have occaſion for his ſervices. The wild buffaloes are very dangerous animals, and are often found to gore travellers to death, and then trample them with their feet, until they have entirely mangled the whole body: however, in the woods they are not ſo much to be feared as in the plains, becauſe in the violence of their purſuit their large horns are apt to be entangled in the branches of the trees, which gives thoſe who have been ſurpriſed by them time to eſcape the danger. There is ſcarce any

other method of avoiding their purſuit; they run with great ſwiftneſs; they overturn a tree of moderate growth; and are ſuch ſwimmers, as croſs the largeſt rivers without any difficulty. In this manner, like all other large animals of the torrid zone, they are very fond of the water; and, in the midſt of their purſuit, often plunge in, in order to cool themſelves. The Negroes of Guinea, and the Indians of Malabar, where buffaloes are in great abundance, take great delight in hunting aud deſtroying them; however, they never attempt to face the buffalo openly, but, generally climbing up the tree, ſhoot at him from thence, and do not come down till they find they have effectually diſpatched him. When they are tamed, no animal can be more patient or humble; and though by no means ſo docile as the cow kind, yet they go through domeſtic drudgeries with more ſtrength and perſeverance.

Although theſe animals be chiefly found in the torrid zone, yet they are bred in ſeveral parts of Europe, particularly in Italy, where they make the food and the riches of the poor. The female produces but one at a time, in the ſame manner as the cow; but they are very different in the times of geſtation; for the cow, as we know, goes but nine months; whereas the

buffalo continues pregnant for twelve. They are all afraid of fire; and, perhaps, in conſequence of this, have an averſion to red colours, that reſemble the colour of flame: it is ſaid, that in thoſe countries where they are found in plenty, no perſon dares to dreſs in ſcarlet. In general they are inoffenſive animals, if undiſturbed; as indeed all thoſe which feed upon graſs are found to be; but when they are wounded, or when even but fired at, nothing then can ſtop their fury; they then turn up the ground with their fore feet, bellow much louder and more terribly than the bull, and make at the object of their reſentment with ungovernable rage. It is happy, in ſuch circumſtances, if the perſon they purſue has a wall to eſcape over, or ſome ſuch obſtacle, otherwiſe they ſoon overtake, and inſtantly deſtroy him. It is remarkable, however, that although their horns are ſo very formidable, they in general make more uſe of their feet in combat, and rather tread their enemies to death than gore them.

Having thus gone through the hiſtory of theſe animals, it may be proper to obſerve, that no names have been more indiſcriminately uſed than thoſe of the bull, the urus, the biſon, and the buffalo. It therefore becomes ſuch as

would have distinct ideas of each, to be careful in separating the kinds, the one from the other, allowing the cow for the standard of all. The aurus whether of the large enormous kind of Lithuania, or the smaller race of Spain, whether with long or short horns, whether with or without long hair in the forehead, is every way the same with what our common breed was before they were taken from the forest, and reduced to a state of servitude. The bison, and all its varieties, which are known by an hump between the shoulders, is also to be ranked in the same class. This animal, whether with crooked or strait horns, whether they be turned towards the cheek, or totally wanting, whether it be large or diminutive, whatever be its colour, or whatever the length of its hair, whether called the bonasus by some, or the bubalus by others, is but a variety of the cow kind, with whom it breeds, and with whom of consequence it has the closest connection. Lastly, the buffalo, though shaped much more like the cow, is a distinct kind by itself, that never mixes with any of the former; that goes twelve months with young; whereas the cow goes but nine; that testifies an aversion to the latter; and, though bred under the same roof, or feeding in the same pasture, has always kept separate; and

makes a distinct race in all parts of the world. These two kinds are supposed to be the only real varities in the cow kind, of which naturalists have given so many varieties. With respect to some circumstances mentioned by travellers, such as that of many kinds defending themselves by voiding their dung against their pursuers; this is a practice which they have in common with other timid creatures when pursued, and arises rather from fear than a desire of defence. The musky smell also by which some have been distinguished, is found common to many of these kinds, in a state of nature; and does not properly make the characteristic marks of any. The particular kind of noise also which some of them are known to make, which rather resembles grunting than bellowing or lowing, is but a savage variety, which many wild animals have, and yet lose when brought into a state of tameness. For these reasons Mr. Buffon, whom I have followed in this description, is of opinion, that the zebu, or little African cow, and the grunting, or Siberian cow, are but different races of the bison; as the shape of the horns, or the length of the hair, are never properly characteristic marks of any animal, but are found to vary with climate, food, and cultivation.

In

De Seve del. I. Taylor sculp

The Zebu.

In this manner the number of animals of the cow kind, which naturalifts have extended to eight or ten forts, are reduced to two; and as the utmoft deference is paid to the opinion of Mr. Buffon in this particular, I have taken him for my guide. Neverthelefs, there is an animal of the cow kind, which neither he, nor any other naturalift that I know of, has hitherto defcribed, yet which makes a very diftinct clafs, and may be added as a third fpecies.

This animal was fhewn fome years ago in London, and feemed to unite many of the characteriftics of the cow and the hog; having the head, the horns, and the tail of the former; with the briftles, the colour, and the grunting of the latter. It is about the fize of an afs, but broader and thicker; the colour refembling that of an hog, and the hair briftly, as in that animal. The hair upon the body was thin, as in the hog, and a row of briftles ran along the fpine, rather fhorter and fofter than in the hog kind. The head was rather larger than that of a cow; the teeth were entirely refembling thofe of that animal, and the tongue was rough in like manner. It fed upon hay; and, confequently, its internal conformation muft have refembled that of the cow

kind more than the hog, whose food is always chosen of a kind more succulent. The eyes were placed in the head as with the cow, and were pretty nearly of the same colour; the horns were black and flattish, but bent rather backwards to the neck, as in the goat kind; the neck was short and thick, and the back rather rising in the middle; it was cloven-footed, like the cow, without those hinder claws that are found in the hog kinds. But the greatest variety of all in this extraordinary creature, which was a female, was, that it had but two teats, and, consequently, in that respect, resembled neither of the kinds to which, in other circumstances, it bore so strong a similitude. Whether this animal was a distinct kind, or a monster, I will not pretend to say; it was shewn under the name of the bonasus; and it was said, by the person who shewed it, to have come from India: but no credit is to be given to interested ignorance; the person only wanted to make the animal appear as extraordinary as possible; and I believe would scarcely scruple a lie or two, to encrease that wonder in us, by which he found the means of living.

CHAP.

C H A P. III.

Of Animals of the Sheep and Goat Kind.

AS no two animals are found entirely the ſame, ſo it is not to be expected that any two races of animals ſhould exactly correſpond in every particular. The goat and the ſheep are apparently different, in the form of their bodies, in their covering, and in their horns. They may from hence be conſidered as two different kinds, with regard to all common and domeſtic purpoſes. But if we come to examine them cloſer, and obſerve their internal conformation, no two animals can be more alike; their feet, their four ſtomachs, their ſuet, their appetites, all are entirely the ſame, and ſhew the ſimilitude between them; but what makes a much ſtronger connection is, that they propagate with each other. The buck goat is found to produce with the ewe an animal that in two or three generations returns to the ſheep, and ſeems to retain no marks of its ancient progenitor*. The ſheep and the goat, therefore, may be conſiderd as belonging to one family; and were the whole races reduced to one

* Buffon, paſſim.

of each, they would quickly repleniſh the earth with their kind.

If we examine the ſheep and goat internally, we ſhall find, as was ſaid, that their conformation is entirely the ſame; nor is their ſtructure very remote from that of the cow kind, which they reſemble in their hoofs, and in their chewing the cud. Indeed, all ruminant animals are internally very much alike. The goat, the ſheep, or the deer, exhibit to the eye of the anatomiſt the ſame parts in miniature, which the cow or the biſon exhibited in the great. But the differences betwen theſe animals are, nevertheleſs, ſufficiently apparent. Nature has obviouſly marked the diſtinctions between the cow and the ſheep kind, by their form and ſize; and they are alſo diſtinguiſhed from thoſe of the deer kind, by never ſhedding their horns. Indeed, the form and figure of theſe animals, if there were nothing elſe, would ſeldom fail of guiding us to the kind; and we might almoſt, upon ſight, tell which belongs to the deer kind, and which are to be degraded into that of the goat. However, the annually ſhedding the horns in the deer, and the permanence in the ſheep, draws a pretty exact line between the kinds; ſo that we may hold to this diſtinction only, and define the ſheep and goat kind as ru-

minant animals of a ſmaller ſize, that never ſhed their horns.

If we conſider theſe harmleſs and uſeful animals in one point of view, we ſhall find that both have been long reclaimed, and brought into a ſtate of domeſtic ſervitude. Both ſeem to require protection from man; and are, in ſome meaſure, pleaſed with his ſociety. The ſheep, indeed, is the more ſerviceable creature of the two; but the goat has more ſenſibility and attachment. The attending upon both was once the employment of the wiſeſt and the beſt of men; and thoſe have been ever ſuppoſed the happieſt times, in which theſe harmleſs creatures were conſidered as the chief objects of human attention. In the earlieſt ages, the goat ſeemed rather the greater favourite; and, indeed, it continues ſuch, in ſome countries, to this day among the poor. However, the ſheep has long ſince become the principal object of human care; while the goat is diſregarded by the generality of mankind, or become the poſſeſſion only of the loweſt of the people. The ſheep, therefore, and its varieties, may be conſidered firſt; and the goat, with all thoſe of its kind, will then properly follow.

THE SHEEP.

THOSE animals that take refuge under the protection of man, in a few generations become indolent and helpleſs. Having loſt the habit of ſelf-defence, they ſeem to loſe alſo the inſtincts of nature. The ſheep, in its preſent domeſtic ſtate, is of all animals the moſt defenceleſs and inoffenſive. With its liberty it ſeems to have been deprived of its ſwiftneſs and cunning; and what in the aſs might rather be called patience, in the ſheep appears to be ſtupidity. With no one quality to fit it for ſelf-preſervation, it makes vain efforts at all. Without ſwiftneſs, it endeavours to fly; and without ſtrength, ſometimes offers to oppoſe. But theſe feeble attempts rather incite than repreſs the inſults of every enemy; and the dog follows the flock with greater delight upon ſeeing them fly, and attacks them with more fierceneſs upon their unſupported attempts at reſiſtance. Indeed they run together in flocks; rather with the hopes of loſing their ſingle danger in the crowd, than of uniting to repreſs the attack by numbers. The ſheep, therefore, were it expoſed in its preſent ſtate to ſtruggle with its natural enemies of the foreſt, would

ſoon be extirpated. Loaded with an heavy fleece, deprived of the defence of its horns, and rendered heavy, ſlow, and feeble, it can have no other ſafety than what it finds from man. This animal is now, therefore, obliged to rely ſolely upon that art for protection, to which it originally owes its degradation.

But we are not to impute to Nature the formation of an animal ſo utterly unprovided againſt its enemies, and ſo unfit for defence. The moufflon, which is the ſheep in a ſavage ſtate, is a bold, fleet creature, able to eſcape from the greater animals by its ſwiftneſs, or to oppoſe the ſmaller kinds with the arms it has received from Nature. It is by human art alone that the ſheep is become the tardy defenceleſs creature we find it. Every race of quadrupeds might eaſily be corrupted by the ſame allurements by which the ſheep has been thus debilitated and depreſſed. While undiſturbed, and properly ſupplied, none are found to ſet any bounds to their appetite. They all purſue their food while able, and continue to graze, till they often die of diſorders occaſioned by too much fatneſs. But it is very different with them in a ſtate of nature: they are in the foreſt ſurrounded by dangers, and alarmed with unceaſing hoſtilities; they are purſued

every hour from one tract of country to another; and ſpend a greater part of their time in attempts to avoid their enemies. Thus conſtantly exerciſed, and continually practiſing all the arts of defence and eſcape, the animal at once preſerves its life and native independence, together with its ſwiftneſs, and the ſlender agility of its form.

The ſheep, in its ſervile ſtate, ſeems to be diveſted of all inclinations of its own; and of all animals it appears the moſt ſtupid. Every quadrupede has a peculiar turn of countenance, a phyſiognomy, if we may ſo call it, that generally marks its nature. The ſheep ſeems to have none of thoſe traits that betoken either courage or cunning; its large eyes, ſeparated from each other, its ears ſticking out on each ſide, and its narrow noſtrils, all teſtify the extreme ſimplicity of this creature; and the poſition of its horns alſo, ſhew that Nature deſigned the ſheep rather for flight than combat. It appears a large maſs of fleſh, ſupported upon four ſmall ſtrait legs, ill fitted for carrying ſuch a burthen; its motions are aukward, it is eaſily fatigued, and often ſinks under the weight of its own corpulency. In proportion as theſe marks of human transformation are more numerous, the animal becomes more helpleſs and ſtupid. Thoſe which live upon a more fertile paſture,

and grow fat, become entirely feeble; thoſe that want horns, are found more dull and heavy than the reſt*; thoſe whoſe fleeces are longeſt and fineſt, are moſt ſubject to a variety of diſorders; and, in ſhort, whatever changes have been wrought in this animal by the induſtry of man, are entirely calculated for human advantage, and not for that of the creature itſelf. It might require a ſucceſſion of ages, before the ſheep could be reſtored to its primitive ſtate of activity, ſo as to become a match for its purſuers of the foreſt.

The goat, which it reſembles in ſo many other reſpects, is much its ſuperior. The one has its particular attachments, ſees danger, and generally contrives to eſcape it; but the other is timid without a cauſe, and ſecure when real danger approaches. Nor is the ſheep, when bred up tame in the houſe, and familiarized with its keepers, leſs obſtinately abſurd: from being dull and timid, it then acquires a degree of pert familiarity; buts with its head, becomes miſchievous, and ſhews itſelf every way unworthy of being ſingled out from the reſt of the flock. Thus it ſeems rather formed for ſlavery than friendſhip; and framed more for the neceſſities than the amuſements of

* Daubenton upon the ſheep.

mankind. There is but one inſtance in which the ſheep ſhews any attachment to its keeper; and that is ſeen rather on the continent, than among us in Great Britain. What I allude to is, their following the ſound of the ſhepherd's pipe. Before I had ſeen them trained in this manner, I had no conception of thoſe deſcriptions in the old paſtoral poets, of the ſhepherd leading his flock from one country to another. As I had been uſed only to ſee theſe harmleſs creatures driven before their keepers, I ſuppoſed that all the reſt was but invention [illegible] many parts of the Alps, and even ſome provinces of France, the ſhepherd and his pipe are ſtill continued, with true antique ſimplicity. The flock is regularly penned every evening, to preſerve them from the wolf; and the ſhepherd returns homeward at ſun-ſet, with his ſheep following him, and ſeemingly pleaſed with the ſound of the pipe, which is blown with a reed, and reſembles the chanter of the bag-pipe. In this manner, in thoſe countries that ſtill continue poor, the Arcadian life is preſerved in all its former purity; but in countries where a greater inequality of conditions prevail, the ſhepherd is generally ſome poor wretch who attends a flock from which he is to derive no

benefits, and only guards thoſe luxuries which he is not fated to ſhare.

It does not appear, from early writers, that the ſheep was bred in Britain; and it was not till ſeveral ages after this animal was cultivated, that the woollen manufacture was carried on among us *. That valuable branch of buſineſs lay for a conſiderable time in foreign hands; and we were obliged to import the cloth, manufactured from our own materials. There were, notwithſtanding, many unavailing efforts among our kings to introduce and preſerve the manufacture at home. Henry the Second, by a patent granted to the weavers in London, directed, that if any cloth was found made of a mixture of Spaniſh wool, it ſhould be burned by the mayor. These edicts at length, although but ſlowly, operated towards the eſtabliſhing this trade among us. The Flemings, who at the revival of arts poſſeſſed the art of cloth-working in a ſuperior degree, were invited to ſettle here; and, ſoon after, foreign cloth was prohibited from being worn in England. In the times of queen Elizabeth, this manufacture received every encouragement; and many of the inhabitants of the Netherlands being then forced, by the tyranny of Spain, to take refuge in this

* Britiſh Zoology, vol. i. p. 23.

country, they improved us in those arts, in which we at present excel the rest of the world. Every art, however, has its rise, its meridian, and its decline; and it is supposed by many, that the woollen manufacture has for some time been decaying amongst us. The cloth now made is thought to be much worse than that of some years past; being neither so firm nor so fine, neither so much courted abroad, nor so serviceable at home.

No country, however, produces such sheep as England; either with larger fleeces, or better adapted for the business of cloathing. Those of Spain, inded, are finer, and we generally require some of their wool to work up with our own; but the weight of a Spanish fleece is no way comparable to one of Lin[illegible] Warwickshire; and, in those counties, it is no uncommon thing to give fifty guineas for a ram.

The sheep without horns are counted the best sort, because a great part of the animal's nourishment is supposed to go up into the horns*. Sheep, like other ruminant animals, want the upper fore teeth; but have eight in the lower jaw: two of these drop, and are replaced at two years old; four of them are re-

* Lisle's Husbandry, vol. ii. p. 155.

placed at three years old; and all at four. The new teeth are easily known from the rest, by their freshness and whiteness. There are some breeds, however, in England, that never change their teeth at all; these the shepherds call the leather-mouthed cattle; and, as their teeth are thus longer wearing, they are generally supposed to grow old a year or two before the rest *. The sheep bring forth one or two at a time; and sometimes three or four. The first lamb of an ewe is generally pot-bellied, short and thick, and of less value than those of a second or third production; the third being supposed the best of all. They bear their young five months; and, by being housed, they bring forth at any time of the year.

But this animal, in its domestic state, is too well known to require a detail of its peculiar habits, or of the arts which have been used to improve the breed. Indeed, in the eye of an observer of Nature, every art which tends to render the creature more helpless and useless to itself, may be considered rather as an injury than an improvement; and if we are to look for this animal in its noblest state, we must seek for it in the African desert, or the extensive plains of Siberia. Among the degenerate

* Lisle's Husbandry, vol. ii. p. 155.

descendants of the wild ſheep, there have been ſo many changes wrought, as entirely to diſguiſe the kind, and often to miſlead the obſerver. The variety is ſo great, that ſcarce any two countries has its ſheep of the ſame kind; but there is found a manifeſt difference in all, either in the ſize, the covering, the ſhape, or the horns.

The woolly ſheep*, as it is ſeen among us, is found only in Europe, and ſome of the temperate provinces of Aſia. When tranſported into warmer countries, either into Florida or Guinea, it loſes its wool, and aſſumes a covering fitted to the climate, becoming hairy and rough; it there alſo loſes its fertility, and its fleſh no longer has the ſame flavour. In the ſame manner, in the very cold countries, it ſeems equally helpleſs and a ſtranger; it ſtill requires the unceaſing attention of mankind for its preſervation; and although it is found to ſubſiſt, as well in Greenland as in Guinea †, yet it ſeems a natural inhabitant of neither.

Of the domeſtic kinds to be found in the different parts of the world, beſides our own, which is common in Europe, the firſt variety is to be ſeen in Iceland, Muſcovy, and the coldeſt climates of the north. This, which

* Buffon, vol. xxiii. p. 168. † Krantz.

may be called the Iceland sheep, resembles our breed, in the form of the body and the tail; but differs in a very extraordinary manner in the number of the horns; being generally found to have four, and sometimes even eight, growing from different parts of the forehead. These are large and formidable; and the animal seems thus fitted by Nature for a state of war: however, it is of the nature of the rest of its kind, being mild, gentle, and timid. Its wool is very different, also, from that of the common sheep, being long, smooth, and hairy. Its colour is of a dark brown; and under its outward coat of hair, it has an internal covering, that rather resembles fur than wool, being fine, short, and soft.

The second variety to be found in this animal, is that of the broad-tailed sheep, so common in Tartary, Arabia, Persia, Barbary, Syria, and Egypt. This sheep is only remarkable for its large and heavy tail, which is often found to weigh from twenty to thirty pounds. It sometimes grows a foot broad, and is obliged to be supported by a small kind of board, that goes upon wheels. This tail is not covered underneath with wool, like the upper part, but is bare; and the natives, who consider it as a very great delicacy, are very careful in attending and

preserving it from injury. Mr. Buffon supposes that the fat which falls into the caul in our sheep, goes in these to furnish the tail; and that the rest of the body is from thence deprived of fat in proportion. With regard to their fleeces, in the temperate climates, they are, as in our own breed, soft and woolly; but in the warmer latitudes, they are hairy: yet in both they preserve the enormous size of their tails.

The third observable variety is that of the sheep called strepsicheros. This animal is a native of the islands of the Archipelago, and only differs from our sheep, in having strait horns, surrounded with a spiral furrow.

The last variety is that of the Guinea sheep, which is generally found in all the tropical climates, both of Africa and the East-Indies. They are of a large size, with a rough hairy skin, short horns, and ears hanging down, with a kind of dewlap under the chin. They differ greatly in form from the rest; and might be considered as animals of another kind, were they not known to breed with other sheep. These, of all the domestic kinds, seem to approach the nearest to the state of nature. They are larger, stronger, and swifter than the common race; and, consequently, better fitted for the precarious forest life. However, they seem to rely,

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The Mouttlon.

ke the reſt, o man for ſupport; being of a domeſtic ature, and ſubſiſting onl armer climates.

Such are the varieties of this animal, wh have been reduced into a ſtate of domeſti vitude. Theſe are all capable of prod among each other; all the peculiarities of th form have been made by climate and human cultivation; and none of them ſeem ſufficiently independent, to live in a ſtate of ſavage nature. They are, therefore, to be conſidered as a degenerate race, formed by the hand of man, and propagated merely for his benefit. At the ſame time, while man thus cultivates the domeſtic kinds, he drives away and deſtroys the ſavage race, which are leſs beneficial, and more headſtrong. Theſe, therefore, are to be found in but a very ſmall number, in the moſt uncultivated countries, where they have been able to ſubſiſt by their native ſwiftneſs and ſtrength. It is in the more uncultivated parts of Greece, Sardinia, Corſica, and particularly in the deſerts of Tartary, that the mouſflon is to be found, that bears all the marks of being the primitive race; and that has been actually known to breed with the domeſtic animal.

The mouſflon, or muſmon, though covered

air, bears a stronger similitude to th... to any other animal; like the ram, ... the eyes placed near the horns; and its ears ... shorter than those of the goat: it also re-... es the ram in its horns, and in all the par-... contours of its form. The horns also are ... ke; they are of a yellow colour; they have three sides, as in the ram, and bend backwards in the same manner behind the ears. The muzzle, and the inside of the ears, are of a whitish colour, tinctured with yellow; the other parts of the face are of a brownish grey. The general colour of the hair over the body is of a brown, approaching to that of the red deer. The inside of the thighs and belly are of a white, tinctured with yellow. The form, upon the whole, seems more made for agility and strength than that of the common sheep; and the moufflon is actually found to live in a savage state, and maintain itself, either by force or swiftness, against all the animals that live by rapine. Such is its extreme speed, that many have been inclined rather to rank it among the deer kind, than the sheep. But in this they are deceived, as the musmon has a mark that entirely distinguishes it from that species, being known never to shed its horns. In some these are seen to grow to a surprising size; many of

them meaſuring, in their convolutions two ells long. They are of a yellow as was ſaid; but the older the animal grows, the darker the horns become: with theſe they often maintain very furious battles between each other; and ſometimes they are found broken off in ſuch a manner, that the ſmall animals of the foreſt creep into the cavity for ſhelter *. When the muſmon is ſeen ſtanding on the plain, his fore legs are always ſtrait, while his hinder legs ſeem bent under him; but in caſes of more active neceſſity, this ſeeming deformity is removed, and he moves with great ſwiftneſs and agility. The female very much reſembles the male of this ſpecies, but that ſhe is leſs, and her horns alſo are never ſeen to grow to that prodigious ſize they are of in the wild ram. Such is the ſheep in its ſavage ſtate; a bold, noble, and even beautiful animal: but it is not the moſt beautiful creatures that are always found moſt uſeful to man. Human induſtry has therefore deſtroyed its grace, to improve its utility.

* Gmelin, as quoted by Buffon.

ANIMALS OF THE

THE GOAT,

AND ITS NUMEROUS VARIETIES.

THERE are ſome domeſtic animals that ſeem as auxiliaries to the more uſeful ſorts; and, that by ceaſing to be the firſt, are conſidered as nothing. We have ſeen the ſervices of the aſs ſlighted, becauſe inferior to thoſe of the horſe; and, in the ſame manner, thoſe of the goat are held cheap, becauſe the ſheep ſo far exceeds it. Were the horſe or the ſheep removed from nature, the inferior kinds would then be invaluable; and the ſame arts would probably be beſtowed in perfecting their kinds, that the higher order of animals have experienced. But in their preſent neglected ſtate, they vary but little from the wild animals of the ſame kind; man has left them their primitive habits and forms; and the leſs they owe to his aſſiduity, the more they receive from nature.

The goat ſeems, in every reſpect, more fitted for a life of ſavage liberty than the ſheep *. It is naturally more lively, and more poſſeſſed with animal inſtinct. It eaſily attaches itſelf to man, and ſeems ſenſible of his careſſes.

* Buffon.

is alſo ſtronger and ſwifter, more cour... and more playful, lively, capricious, ... grant: it is not eaſily confined to its flock. ... chuſes its own paſtures, and loves to ſtr... ...te from the reſt. It chiefly delights in cl... ing precipices; in going to the very edge ... danger: it is often ſeen ſuſpended upon an eminence hanging over the ſea, upon a very little baſe, and even ſleeps there in ſecurity. Nature has, in ſome meaſure, fitted it for traverſing theſe declivities with eaſe; the hoof is hollow underneath, with ſharp edges, ſo that it walks as ſecurely on the ridge of an houſe, as on the level ground. It is an hardy animal, and very eaſily ſuſtained; for which reaſon it is chiefly the property of the poor, who have no paſtures with which to ſupply it. Happily, however, it ſeems better pleaſed with the neglected wild, than the cultivated fields of art; it chuſes the heathy mountain, or the ſhrubby rock; its favourite food is the tops of the boughs, or the tender bark of young trees: it ſeems leſs afraid of immoderate heat, and bears the warm climates better than the ſheep: it ſleeps expoſed to the ſun; and ſeems to enjoy its warmeſt fervours: neither is it terrified at the ſtorm, or incommoded by the rain; immoderate cold alone ſeems to affect it, and is ſaid

...ic a vertigo, with wh h this anim... ...metimes incommoded. The inconstan... nature is perceivable in the irregularity of ...it; it goes forward, stops, runs, ap-...hes, flies, merely from caprice, and with ...other seeming reason than the extreme vi-vacity of its disposition.

There are proofs of this animal's being naturally the friend of man; and that the goat seldom resumes its primeval wildness, when once reduced into a state of servitude. In the year 1698, an English vessel happening to touch at the islands of Bonavista, two Negroes came, and offered the sailors as many goats as they chose to take away. Upon the captain's expressing his astonishment at this offer, the Negroes assured him that there were but twelve persons in the island, and that the goats were multiplied in such a manner as even to become a nuisance: they added, that instead of giving any trouble to catch them, they followed the few inhabitants that were left with a sort of obstinacy, and rather became importunate with their tameness.

The goat produces but two at a time; and three at the most. But in the warmer climates, although the animal degenerates, and grows less, yet it becomes more fruitful, being ge-

[illegible]rally found to bring forth three, [illegible] [illegible]e at a fingle delivery. The buck is [illegible] of propagating at the age of one year, and female at feven months; however, the fr[illegible] of this premature generation are weak and [illegible]e-fective; and their beft breeding-time is [illegible] rally delayed till the age of two years, or eighteen months at [illegible]. One buck is fufficient for an hundred and fifty goats; his appetites are exceffive: but this ardour brings on a fpeedy decay, fo that he is enervated in four years at moft, and even becomes old before he reaches his feventh year. The goat, like the fheep, continues five months with young; and, in fome places, bears twice a year.

The milk of the goat is fweet, nourifhing, and medicinal; not fo apt to curdle upon the ftomach as that of the cow; and, therefore, preferable to thofe whofe digeftion is but weak. The peculiarity of this animal's food gives the milk a flavour different from that either of the cow or the fheep; for as it generally feeds upon fhrubby paftures, and heathy mountains, there is an agreeable wildnefs in the tafte, very pleafing to fuch as are fond of that aliment. In feveral parts of Ireland, and the highlands of Scotland, the goat makes the chief poffeffion of the inhabitants. On thofe mountains, where

useful animal could find subsistence, continues to glean a sufficient living; supplies the hardy natives with what they consider as varied luxury. They lie upon beds made of their skins, which are soft, clean, and wholesome; they live upon their milk, with oat bread; they convert a part of it into butter, and some into cheese; the flesh, indeed, they seldom taste of, as it is a delicacy which they find too expensive; however, the kid is considered, even by the city epicure, as a great rarity; and the flesh of the goat, when properly prepared, is ranked by some as no way inferior to venison. In this manner, even in the wildest solitudes, the poor find comforts of which the rich do not think it worth their while to dispossess them; in these mountainous retreats, where the landscape presents only a scene of rocks, heaths, and shrubs, that speak the wretchedness of the soil, these simple people have their feasts, and their pleasures; their faithful flock of goats attends them to these awful solitudes, and furnishes them with all the necessaries of life; while their remote situation happily keeps them ignorant of greater luxury.

As these animals are apt to stray from the flock, no man can attend above fifty of them at a time. They are fattened in the same

anner as sheep; but, taking every pr
heir flesh is never so good or so f
our climate, as that of mutton. It is o
wise between the tropics. The mutton there
becomes flabby and lean, while the flesh of the
goat rather seems to improve; and in some
places the latter is cultivated in preference to
the former. We, therefore, find this animal
in almost every part of the world, as it seems
fitted for the necessities of man in both extremes. Towards the north, where the pasture
is coarse and barren, the goat is fitted to find a
scanty subsistence; between the tropics, where
the heat is excessive, the goat is fitted to bear
the climate, and its flesh is found to improve.

One of the most remarkable varieties we find
in the goat is in that of Natolia. The Natolian
goat, or, as Mr. Buffon calls it, the goat of
Angora, has the ears longer than ours, and
broader in proportion. The male has horns of
about the same length with the goat of Europe,
but black, and turned very differently, going
out horizontally on each side of the head, and
twisted round in the manner of a cork-screw.
The horns of the female are shorter, and encircle the ear somewhat like those of the ram.
They are of a dazzling white colour, and in
all the hair is very long, thick, fine, and glossy;

...ed, is the cafe with almoft all the ani... ...ria. There are a great number of thefe ...s about Angora, where the inhabitants drive a trade with their hair, which is fold, either raw or manufactured, into all parts of Europe. Nothing can exceed the beauty of the ftuffs which are made from the hair of almoft all the animals of that country. Thefe are well known among us by the name of camlet.

A fecond variety is the Affyrian goat of Gefner, which is fomewhat larger than ours, with ears almoft hanging down to the ground, and broad in proportion. The horns, on the contrary, are not above two inches and an half long, black, and bending a little backwards. The hair is of a fox colour, and under the throat there are two excrefcences, like the gills of a cock. Thefe animals are chiefly kept round Aleppo, for the fake of their milk. They are driven through the ftreets, and their milk is fold to the inhabitants as they pafs along.

In the third variety may be reckoned, the little goat of America, which is of the fize of a kid, but the hair is as long as that of the ordinary breed. The horns, which do not exceed the length of a man's finger, are thick, and bend downwards fo clofe to the head, that they almoft enter the fkin.

There is an animal of this kind at the Cape of Good Hope, called the blue goat, which may be ranked as the fourth variety. It is in shape like the domestic, but much larger, being nearly of the size of a stag. Its hair is very short, and of a delightful blue; but it loses a great deal of its beauty when the animal is dead. It has a very long beard; but the horns are not so long in proportion as in other goats, being turned spirally, in the manner of a cork-screw. It has very long legs, but well propor-tioned; and the flesh is very well tasted, but lean. For this reason, in that plentiful country, it is chiefly killed upon account of its skin. It is a very shy animal, and seldom comes near the Dutch settlements; but they are found in great abundance in the more uncultivated parts of the country. Besides these, they are found in this extensive region of various colours, and many of them are spotted beautifully, with red, white, and brown.

In fine, the Juda goat resembles ours in most parts, except in size, it being much smaller. This animal is common in Guinea, Angola, and all along the coasts of Africa: it is not much larger than a hare, but it is extremely fat, and its flesh admirably tasted. It is in that country universally preferred to mutton.

These animals seem all of one kind, with very

[illegible] nctions between them. It is true [illegible] differ in some respects; such as having [illegible] the same colour, hair, ears, or horns. But [illegible] ught to be considered as a rule in natural history, that neither the horns, the colour, the fi[illegible]s, or the length of the hair, or the position of the ears, are to be considered as making an actual [illegible] in the kinds. These are accidental varieties, produced by climate and food, which are known to change even in the same animal, and give it a seeming difference of form. When we see the shapes, the inclinations, and the internal conformation of seemingly different creatures nearly the same; and, above all, when we see them [illegible]ing among each other, we then have no hesitation in pronouncing the species, and asserting that these are of the goat kind, with which they are so materially connected.

But, although these are evidently known to belong to the goat kind, there are others nearly resembling the goat, of whose kindred we cannot be equally certain. These are such as, being found in a state of nature, have not as yet been sufficiently subjected to human observation. Hence it is impossible to determine with precision to which class they belong; whether they be animals of a particular kind, or merely the

[illegible]at in its ſtate of ſavage freedom. [illegible] [illegible]out one of theſe wild animals, the [illegible] [illegible]ould ſoon be e[illegible]ded; and we might [illegible] al[illegible] it for the parent ſto[illegible]k; but in th[illegible] [illegible] pre-ſent caſe, there are two kinds that have [illegible] [illegible]oiſt equal pretenſions to this honour; and th[illegible] [illegible]bers of which it has been foun[illegible] diff[illegible]t to determine. The animal[illegible] [illegible]ion a[illegible] the ſhammoy and the ibex. Theſe both bear very near approaches to the goat [illegible] figure; have horns that never ſhed; and, [illegible]t the ſame time, are more different from each other than from the animal in queſtion. From which of theſe two ſources our domeſtic goat is derived is not eaſy to [illegible]. Inſtead, therefore, of entering into the [illegible]iſcuſſion, I will content myſelf with the reſult of M. Buffon's enquiries. He is of opinion that the ibex is the principal ſource, that our domeſtic goat is the immediate deſcendant, and that the ſhammoy is but a variety from that ſtock, a ſort of collateral branch of the ſame family. His principal reaſon for giving the preference to the ibex is its having a more maſculine figure, large horns, and a large beard; whereas the ſhammoy wants theſe marks of primitive ſtrength and wildneſs. He ſuppoſes, therefore, in their original ſavage ſtate, that our goat has taken after the male of the parent

the shammoy after the female; and has produced a variety in these animals even before they underwent human cultivation.

However this be, the two animal in question seem well fitted for their precarious life, being extremely swift, and capable of running with ease along the ledges of precipices, where even the wolf or the fox, though instigated by hunger, dares not pursue them. They are both natives of the Alps, the Pyrenees, and the mountains of Greece; there they propagate in vast numbers, and continue to exist in spite of the hunter and every beast of prey that is found incessantly to pursue them.

The ibex resembles the goat in the shape of its body; but differs in the horns, which are much larger. They are bent backward, full of knots; and it is generally asserted that there is a knot added every year. There are some of these found, if we may believe Bellonius, at least two yards long. The ibex has a large black beard, is of a brown colour, with a thick warm coat of hair. There is a streak of black runs along the top of the back; and the belly and back of the thighs are of a fawn colour.

The shammoy *, though a wild animal, is very easily tamed, and docile; and to be found

* M. Peroud's Account, as quoted by Buffon.

[illegible]ily in rocky and mountainous [illegible]. It [illegible] about the ſize of a domeſtic goat, and reſembles one in many reſpects. It is moſt agreeably lively, and active beyond expreſſion. The chamoy's hair is ſhort, like that of the doe; in ſpring it is of an aſh colour, in autumn a dun colour, inclining to black, and in winter of a blackiſh brown. This animal is found in great plenty in the mountains of Dauphiny, of Piedmont, Savoy, Swizerland, and Germany. They are peaceful, gentle creatures, and live in ſociety with each other. They are found in flocks of from four to fourſcore, and even an hundred, diſperſed upon the crags of the mountains. The large males are ſeen feeding detached from the reſt, except in rutting time, when they approach the females, and drive away the young. [illegible] is from the beginning of November to the end of October; and they bring forth in April and March. The young keeps with the dam for about five months, and ſometimes longer, if the hunters and the wolves do not ſeparate them. It is aſſerted that they live between twenty and thirty years. Their fleſh is good to eat; and they are found to have ten or twelve pounds of ſuet, which far ſurpaſſes that of the goat in hardneſs and goodneſs. The

mm[illegible] ſcarce any cry, as moſt animals are known to have; if it has any, it is a kind of feeble bleat, by which the parent calls its young. But in caſes of danger, and when it is to warn the reſt of the flock, it uſes an hiſſing noiſe, which is heard at a great diſtance. For it is to be obſerved that this creature is extremely vigilant, and has an eye the quickeſt and moſt piercing in nature. Its ſmell alſo is not leſs diſtinguiſhing. When it ſees its enemy diſtinctly, it ſtops for a moment; and then, if the perſon be near, in an inſtant after it flies off. In the ſame manner, by its ſmell, it can diſcover a man at half a league diſtance, and gives the earlieſt notice. Upon any alarm, therefore, or any apprehenſions of danger, the ſhammoy begins his hiſſing noiſe with ſuch [illegible] rocks and the foreſts re-echo to the ſound. The firſt hiſs continues as long as the time of one inſpiration. In the beginning it is very ſharp, and deeper towards the cloſe. The animal having, after this firſt alarm, reposed a moment, again looks round, and, perceiving the reality of its fears, continues to hiſs by intervals, until it has ſpread the alarm to a very great diſtance. During this time, it ſeems in the moſt violent agitation; it ſtrikes the ground with its fore-foot, and ſometimes with

both :

both; it bounds from rock to rock; it turns, and looks round; it runs to the edge of the precipice; and, ſtill perceiving the enemy, flies with all its ſpeed. The hiſſing of the male is much louder and ſharper than that of the female; it is performed through the noſe; and is properly no more than a very ſtrong breath, driven violently through a ſmall aperture. The ſhammoy feeds upon the beſt herbage, and chuſes the moſt delicate parts of the plants, the flower, and the tender buds. It is not leſs delicate with regard to ſeveral aromatic herbs, which grow upon the ſides of the mountains, It drinks but very little while it feeds upon the ſucculent herbage, and chews the cud in the intervals of feeding. This animal is greatly admired for the beauty of its eyes, which are round and ſparkling, and which mark the warmth of its conſtitution. It head is furniſhed with two ſmall horns, of about half a foot long, of a beautiful black, and riſing from the forehead, almoſt betwixt the eyes. Theſe, contrary to what they are found in other animals, inſtead of going backwards or ſideways, jet out forward, and bend a little, at their extremities, backward, in a ſmall circle, and end in a very ſharp point. The ears are placed in a very elegant manner, near the horns; and there are

two ſtripes of black on each ſide of the face, the reſt being of a whitiſh yellow, which never changes. The horn of this animal is often uſed as the head of a cane. Thoſe of the females are leſs, and not ſo much bent; and ſome farriers are uſed to bleed cattle with them. Theſe animals are ſo much incommoded by heat, that they are never found in ſummer, except in the caverns of rocks, amidſt fragments of unmelted ice, under the ſhade of high and ſpreading trees, or of rough and hanging precipices, that face the north, and which keep off entirely the rays of the ſun. They go to paſture both morning and evening, and ſeldom during the heat of the day. They run along the rocks with great eaſe and ſeeming indifference, and leap from one to another, ſo that no dogs are able to purſue them. There is nothing more extraordinary than to ſee them climbing and deſcending precipices, that to all other quadrupedes are inacceſſible. They always mount or deſcend in an oblique direction; and throw themſelves down a rock of thirty feet, and light with great ſecurity upon ſome excreſcence, or fragment, on the ſide of the precipice, which is juſt large enough to place their feet upon; they ſtrike the rock, however, in their deſcent, with their feet, three or four times,

to ſtop the velocity of their motion; and, when they have got upon the rock below, they at once ſeem fixed and ſtand faſt; ſo that when them jump in this manner, they ſeem rather to have wings than legs: ſome, indeed, pretend to ſay that they uſe their horns for climbing, but this wants confirmation. Certain it is that their legs alone are formed for this arduous employment, the hinder being rather longer than the former, and bending in ſuch a manner that, when they deſcend upon them, they break the force of the fall. It is alſo aſſerted, that when they feed, one of them always ſtands as centinel; but how far this may be true is queſtionable. For certain, while they feed, there are ſome of them that keep continually gazing round the reſt; but this is practiſed among all gregarious animals; ſo that when they ſee any danger, they warn the reſt of the herd of its approach. During the rigours of winter, the ſhammoy ſleeps in the thicker foreſts, and feeds upon the ſhrubs and the buds of the pine-tree. It ſometimes turns up the ſnow with its foot to look for herbage; and where it is green, makes a delicious repaſt. The more craggy and uneven the foreſt, the more this animal is pleaſed with the abode, which thus adds to its ſecurity. The hunting the

ſhammoy hunting is very laborious, and extremely difficult. The moſt uſual way is to hide behind the clefts of the rocks and ſhoot them. This, however, muſt be done with great precaution; the ſportſman muſt creep for a vaſt way upon his belly, in ſilence, and take alſo the advantage of the wind, which if it blew from him they would inſtantly perceive. When arrived at a proper diſtance, he then advances his piece, which is to be rifle-barrelled, and to carry one ball, and tries his fortune among them. Some alſo purſue this animal as they do the ſtag, by placing proper perſons at all the paſſages of a glade, or valley, and then ſending in others to rouſe the game. Dogs are quite uſeleſs in this chace, as they rather alarm than overtake. Nor is it without danger even to the men; for it often happens that when the animal finds itſelf overpreſſed, it drives at the hunter with its head, and often tumbles them down the neighbouring precipice. This animal cannot go upon ice when ſmooth; but if there be the leaſt inequalities on its ſurface, it then bounds along with ſecurity, and quickly evades all purſuit.

The ſkin of the ſhammoy was once famous, when tanned, for its ſoftneſs and warmth; at preſent, however, ſince the art of tanning has been brought to greater perfection, the leather

called ſhammoy is made alſo from the ſkin of the ſame goat, the ſheep, and the doe. Many medicinal virtues alſo were ſaid to reſide in the blood, fat, gall, and the concretion ſometimes found in the ſtomach of this animal, called the German bezoar. The fat, mixed with milk, was ſaid to be good in ulcers of the lungs. The gall was ſaid to be uſeful in ſtrengthening the ſight; the ſtone, which is generally about the ſize of a walnut and blackiſh, was formerly in great requeſt for having the ſame virtues with oriental bezoar. However, in the preſent enlightened ſtate of phyſic, all theſe medicines are quite out of repute; and, although we have the names of ſeveral medicines procurable from quadrupedes, yet, except the muſk or hartshorn alone, I know of none in any degree of reputation. It is true, the fat, the urine, the beak, and even the dung, of various animals, may be found efficacious, where better remedies are not to be had; but they are far ſurpaſſed by many at preſent in uſe, whoſe operations we know, and whoſe virtues are confirmed by repeated experience.

Such are the quadrupedes that more peculiarly belong to the goat kind. Each of theſe, in all probability, can engender and breed with the other; and were the whole race extin-

guifhed, [illegible] any two, thefe would be fufficient to [illegible] the world, and continue the kind. Nature, however, proceeds in her variations by flow and infenfible degrees, and fcarce draws a firm diftinguifhed line between any two neighbouring races of animals whatfoever. Thus it is hard to difcover where the fheep ends and the goat begins; and we fhall find it ftill harder to fix precifely the boundaries between the goat kind and the deer. In all tranfitions from one kind to the other, there are to be found [illegible] middle race of animals, that feem to partake of the nature of both, and that can precifely be referred to neither. That race of quadrupedes, called the gazelles, are of this kind; they are properly neither goat nor deer, and yet they have many of the marks of both; they make the fhade between thefe two kinds, and fill up the chafm in nature.

THE GAZELLES.

THE gazelles, of which there are feveral kinds, can, with propriety, be referred neither to the goat or the deer; and yet they partake of both natures. Like the goat, they have hollow horns that never fall, which is otherwife in the deer. They have a gall bladder,

which is found in the goat and not in the deer; and, like that animal, they feed rather upon ſhrubs than graſſy paſtures. On the other hand, they reſemble the roe-buck in ſize and delicacy of form; they have deep pits under the eyes like that animal; they reſemble the roe-buck in the colour and nature of their hair; they reſemble him in the bunches upon their legs, which only differ in being upon the fore-legs in theſe, and on the hind legs in the other. They ſeem, therefore, to be of a middle nature between theſe two kinds; or, to ſpeak with greater truth and preciſion, they form a diſtinct kind by themſelves.

The diſtinguiſhing marks of this tribe of animals, by which they differ both from the goat and deer, are theſe: their horns are made differently, being annulated or ringed round, at the ſame time that there are longitudinated depreſſions running from the bottom to the point. They have bunches of hair upon their fore-legs; they have a ſtreak of black, red, or brown, running along the lower part of their ſides, and three ſtreaks of whitiſh hair in the internal ſide of the ear. Theſe are characters that none of them are without; beſides theſe, there are others which, in general, they are found to have, and which are more obvious to the be-

holder. Of all animals in the world, the gazelle has the most beautiful eye, extremely brilliant, and yet so meek, that all the eaſtern poets compare the eyes of their miſtreſſes to thoſe of this animal. A gazelle-eyed beauty is conſidered as the higheſt compliment that a lover can pay; and, indeed, the Greeks themſelves thought it no inelegant piece of flattery to reſemble the eyes of a beautiful woman to thoſe of a cow. The gazelle, for the moſt part, is more delicately and finely limbed than even the roe-buck; its hair is as ſhort, but finer and more gloſſy. Its hinder legs are longer than thoſe before, as in the hare, which gives it greater ſecurity in aſcending or deſcending ſteep places. Their ſwiftneſs is equal, if not ſuperior to that of the roe; but as the latter bounds forward, ſo theſe run along in an even uninterrupted courſe. Moſt of them are brown upon the back, white under the belly, with a black ſtripe, ſeparating thoſe colours between. Their tail is of various lengths, but in all covered with pretty long hair; and their ears are beautiful, well placed, and terminating in a point. They all have a cloven hoof, like the ſheep; they all have permanent horns; and the female has them ſmaller than the male.

Of theſe animals, Mr. Buffon makes twelve varieties; which, however, is much fewer than what other naturaliſts have made them. The firſt is the Gazella, properly ſo called, which is of the ſize of the roe-buck, and very much reſembling it in all the proportions of its body, but entirely differing, as was ſaid, in the nature and faſhion of the horns, which are black and hollow, like thoſe of the ram, or the goat, and never fall. The ſecond he calls the Kevel, which is rather leſs than the former; its eyes alſo ſeem larger; and its horns, inſtead of being round, are flatted on the ſides, as well in the male as the female. The third he calls the Corin, which very much reſembles the two former, but that it is ſtill leſs than either. Its horns alſo are ſmaller in proportion, ſmoother than thoſe of the other two, and the annular prominences belonging to the kind are ſcarce diſcernible, and may rather be called wrinkles than prominences. Some of theſe animals are often ſeen ſtreaked like the tiger. Theſe three are ſuppoſed to be of the ſame ſpecies. The fourth he calls the Zeiran, the horns only of which he has ſeen; which, from their ſize, and the deſcription of travellers, he ſuppoſes to belong to a larger kind of the gazelle, found in India and Perſia, under that denomination.

The fifth he calls the Koba, and the ſixth the Kob; theſe two differ from each other only in ſize, the former being much larger than the latter. The muzzle of theſe animals is much longer than thoſe of the ordinary gazelle; the head is differently ſhaped, and they have no depreſſions under the eyes. The ſeventh he calls after its Egyptian name, the Algazel; which is ſhaped pretty much like the ordinary gazelle, except that the horns are much longer, being generally three feet from the point to the inſertion; whereas, in the common gazelle, they are not above a foot; they are ſmaller alſo, and ſtraiter till near the extremities, when they turn ſhort, with a very ſharp flexure; they are black and ſmooth, and the annular prominences are ſcarcely obſervable. The eighth is called the Pazan; or, by ſome, the bezoar goat, which greatly reſembles the former, except a ſmall variety in their horns; and alſo with this difference, that as the algazel feeds upon the plains, this is only found in the mountains. They are both inhabitants of the ſame countries and climates; being found in Egypt, Arabia, and Perſia. This laſt is the animal famous for that concretion in the inteſtines or ſtomach, called the Oriental Bezoar, which was once in ſuch repute all over the world for its medicinal

virtues. The word bezoar is supposed to take its name either from the pazan or pazar, which is the animal that produces it; or from a word in the Arabic language, which signifies antidote, or counter-poison. It is a stone of a glazed blackish colour, found in the stomach, or the intestines of some animal, and brought over to us from the East-Indies. Like all other animal concretions, it is found to have a kind of nucleus, or hard substance within, upon which the external coatings were formed; for, upon being sawed through, it is seen to have layer over layer, as in an onion. This nucleus is of various kinds; sometimes the buds of a shrub, sometimes a piece of stone, and sometimes a marcasite. This stone is from the size of an acorn to that of a pigeon's egg; the larger the stone, the more valuable it is held; its price encreasing, like that of a diamond. There was a time when a stone of four ounces sold in Europe for above two hundred pounds; but, at present, the price is greatly fallen, and they are in very little esteem. The bezoar is of various colours; sometimes of a blood colour, sometimes of a pale yellow, and of all the shades between these two. It is generally glossy, smooth, and has a fragrant smell, like that of ambergrease, probably arising from the aro-

matic vegetables upon which the animal that produces it, feeds. It has been given in vertigoes, epilepſies, palpitations of the heart, colic, jaundice, and, in thoſe places where the dearneſs, and not the value of medicines, is conſulted, in almoſt every diſorder incident to man. In all, perhaps, it is equally efficacious, acting only as an abſorbent powder, and poſſeſſing virtues equal to common chalk, or crabs claws. Judicious phyſicians have therefore diſcarded it; and this celebrated medicine is now chiefly conſumed in countries where the knowlege of nature has been but little advanced. When this medicine was in its higheſt reputation, many arts were uſed to adulterate it; and many countries endeavoured to find out a bezoar of their own. Thus we had occidental bezoar, brought from America; German bezoar, which has been mentioned before; cow bezoar, and monkey bezoar. In fact, there is ſcarce an animal, except of the carnivorous kinds, that does not produce ſome of theſe concretions in the ſtomach, inteſtines, kidnies, bladder, and even in the heart. To theſe ignorance may impute virtues that they do not poſſeſs: experience has found but few cures wrought by their efficacy; but it is well known, that they often prove fatal to the animal that

bears them. Theſe concretions are generally found in cows, by their practice of licking off their hair, which gathers in the ſtomach into the ſhape of a ball, acquires a ſurpriſing degree of hardneſs, and ſometimes a poliſh like leather. They are often as large as a gooſe-egg; and, when become too large to paſs, block up the paſſage of the food, and the animal dies. The ſubſtance of theſe balls, however, is different from the bezoar mentioned above; being rather a concretion of hair than of ſtone. There is a bezoar found in the gall-bladder of a boar, and thence called hog bezoar, in very great eſteem; but perhaps with as little juſtice as any of the former. In ſhort, as we have already obſerved, there is ſcarce an animal, or ſcarce a part of their bodies, in which concretions are not formed; and it is more than probable, as Mr. Buffon juſtly remarks, that the bezoar ſo much in uſe formerly, was not the production of the pazar, or any one animal only, but that of the whole gazelle kind; who feeding upon odoriferous herbs and plants, give this admirable fragrance to the accidental concretions which they were found to produce. As this medicine, however, is but little uſed at preſent, our curioſity is much abated, as to the cauſe of its formation. To return, there-

fore, to the varieties in the gazell tribe, the ninth is called the Ranguer, and is a native of Senegal. This differs ſomewhat in ſhape and colour from the reſt; but particularly in the ſhape of its horns, which are ſtrait to near the points, where they crook forward, pretty much in the ſame manner as in the ſhamoy they crook backward. The tenth variety of the gazelle is the Antelope, ſo well known to the Engliſh, who have given it the name. This animal is of the ſize of a roe-buck, and reſembles the gazelle in many particulars, but differs in others: it has deeper eye-pits than the former; the horns are formed differently alſo, being about ſixteen inches long, almoſt touching each other at the bottom, and ſpreading as they riſe, ſo as at their tips to be ſixteen inches aſunder. They have the annular prominences of their kind, but not ſo diſtinguiſhable as in the gazelle: however, they have a double flexure, which is very remarkable, and ſerves to diſtinguiſh them from all others of their kind. At the root they have a tuft of hair, which is longer than that of any part of the body. Like others of the ſame kind, the antelope is brown on the back, and white under the belly; but theſe colours are not ſeparated by the black ſtreak which is to be found in all the reſt of the gazelle kinds.

There are different ſorts of this animal, ſome with larger horns than others, and others with leſs. The one which makes the eleventh variety in the gazelle kind, Mr. Buffon calls the Lidme, which has very long horns; and the other, which is the twelfth and laſt, he calls the Indian Antelope, the horns of which are very ſmall.

To theſe may be added three or four varieties more, which it is not eaſy to tell whether to refer to the goat or the gazelle, as they equally reſemble both. The firſt of theſe is the Bubalus, an animal that ſeems to partake of the mixed natures of the cow, the goat, and the deer. It reſembles the ſtag in the ſize and the figure of its body, and particularly in the ſhape of its legs. But it has permanent horns, like the goat; and made entirely like thoſe of the gazelle kind. It alſo reſembles that animal in its way of living: however, it differs in the make of its head, being exactly like the cow in the length of its muzzle, and in the diſpoſition of the bones of its ſcull; from which ſimilitude it has taken its name. This animal has a narrow long head; the eyes are placed very high; the forehead ſhort and narrow; the horns permanent, about a foot long, black, thick, annulated, and the rings of the gazelle kind, remarkable large; its ſhoulders

are very high, and it has a kind of bunch on them, that terminates at the neck; the tail is about a foot long, and tufted with hair at the extremity. The hair of this animal is remarkable in being thicker at the middle than at the root; in all other quadrupedes, except the elk and this, the hair tapers off from the bottom to the point; but in these, each hair seems to swell in the middle, like a nine-pin. The bubalus also resembles the elk in size, and the colour of its skin; but these are the only similitudes between them: as the one has a very large branching head of solid horns that are annually deciduous, the other has black unbranching hollow horns that never fall. The bubalus is common enough in Barbary, and has often been called by the name of the Barbary Cow, from which animal it differs so widely. It partakes pretty much of the nature of the antelope; like that having the hair short, the hide black, the ears pointed, and the flesh good for food.

The second anomalous animal of the goat kind, Mr. Buffon calls the Condoma. It is supposed to be equal in size to the largest stag, but with hollow horns, like those of the goat kind, and with varied flexures, like those of the antelope. They are above three feet long; and, at their extremities, about two feet asunder.

aſunder. All along the back there runs a white liſt, which ends at the inſertion of the tail; another of the ſame colour croſſes this, at the bottom of the neck, which it entirely ſurrounds: there are two more of the ſame kind running round the body, one behind the fore legs, and the other running parallel to it before the hinder. The colour of the reſt of the body is greyiſh, except the belly, which is white: it has alſo a long grey beard; and its legs, though long, are well proportioned.

The third that may be mentioned, he calls the Guiba. It reſembles the gazelles in every particular, except in the colour of the belly, which, as we have ſeen, is white in them, but in this is of a deep brown. Its horns alſo are not marked with annular prominences, but are ſmooth and poliſhed. It is alſo remarkable for white liſts, on a brown ground, that are diſpoſed along the animal's body, as if it were covered with a harneſs. Like the former, it is a native of Africa.

The African Wild Goat of Grimmius is the fourth. It is of a dark aſh colour, and in the middle of the head is an hairy tuft, ſtanding upright; on both ſides, between the eyes and the noſe, there are very deep cavities, greater than thoſe of the other kinds, which contain a

yellow oily liquor, coagulating into a black ſubſtance, that has a ſmell between muſk and civet. This being taken away, the liquor again runs out, and coagulates, as before. Theſe cavities have no communication with the eyes, and, conſequently, this oozing ſubſtance can have nothing of the nature of tears.

To this we may add the Chevrotin, or little Guinea Deer, which is the leaſt of all cloven-footed quadrupedes, and perhaps the moſt beautiful; its legs, at the ſmalleſt part, are not much thicker than the ſhank of a tobacco-pipe; it is about ſeven inches high, and about twelve from the point of the noſe to the inſertion of the tail. It is the moſt delicately ſhaped animal in the world, being completely formed like a ſtag in miniature; except that its horns, when it has any, are more of the gazelle kind, being hollow and annulated in the ſame manner. It has two canine teeth in the upper jaw; in which reſpect it differs from all other animals of the goat or deer kind, and thus makes a ſpecies entirely diſtinct by itſelf. This wonderful animal's colour is not leſs pleaſing; the hair, which is ſhort and gloſſy, being in ſome of a beautiful yellow, except on the neck and belly, which is white. They are natives of India, Guinea, and the warm climates between the tropics;

and are found in great plenty. But though they are amazingly ſwift for their ſize, yet the Negroes often overtake them in the purſuit, and knock them down with their ſticks. They may be eaſily tamed, and then they become familiar and pleaſing; but they are of ſuch delicate conſtitutions, that they can bear no climate but the hotteſt; and they always periſh with the rigours of ours, when they are brought over. The male in Guinea has horns; the female is without any; as are all the kinds of this animal, to be found either in Java or Ceylon, where they chiefly abound.

Such is the liſt of the gazelles; all which pretty nearly reſemble the deer in form, and delicacy of ſhape; but have the horns hollow, ſingle, and permanent, like thoſe of the goat. They properly fill up, as has been already obſerved, the interval between theſe two kinds of animals; ſo that it is difficult to tell where the goat ends, and the deer may be ſaid to begin. If we compare the gazelles with each other, we ſhall find but very ſlight diſtinctions between them. The turn or the magnitude of the horns, the different ſpots on the ſkin, or a difference of ſize in each, are chiefly the marks by which their varieties are to be known; but their

way of living, their nature, and their peculiar ſwiftneſs, all come under one deſcription.

The gazelles are, in general, inhabitants of the warmer climates; and contribute, among other embelliſhments, to add beauty to thoſe foreſts that are for ever green. They are often ſeen feeding in herds, on the ſides of the mountains, or in the ſhade of the woods; and fly all together, upon the ſmalleſt approaches of danger. They bound with ſuch ſwiftneſs, and are ſo very ſhy, that dogs or men vainly attempt to purſue them. They traverſe thoſe precipices with eaſe and ſafety, which to every quadrupede elſe are quite impracticable; nor can any animals, but of the winged kind, overtake them. Accordingly, in all thoſe countries where they are chiefly found, they are purſued by falcons; and this admirable manner of hunting makes one of the principal amuſements of the upper ranks of people all over the Eaſt.

The Arabians, Perſians, and Turks, breed up for this purpoſe, that kind of hawk called the Falcon Gentle, with which, when properly trained, they go forth on horſeback among the foreſts and the mountains, the falcon perching upon the hand of the hunter. Their expedition is conducted with profound ſilence; their dogs are taught to hang behind; while the men, on

the fleeteſt courſers, look round for the game. Whenever they ſpy a gazelle at the proper diſtance, they point the falcon to its object, and encourage it to purſue. The falcon, with the ſwiftneſs of an arrow, flies to the animal; that, knowing its danger, endeavours, but too late, to eſcape. The falcon ſoon coming up with its prey, fixes its talons, one into the animal's cheek, the other into its throat, and deeply wounds it. On the other hand, the gazelle attempts to eſcape, but is generally wounded too deeply to run far. The falcon clings with the utmoſt perſeverance, nor ever leaves its prey till it falls; upon which the hunters from behind approaching, take up both, and reward the falcon with the blood of the ſpoil. They alſo teach the young ones, by applying them to the dead animal's throat, and accuſtoming them betimes to fix upon that particular part; for if it ſhould happen that the falcon fixed upon any other part of the gazelle, either its back or its haunches, the animal would eaſily eſcape among the mountains, and the hunter would alſo loſe his falcon.

They ſometimes alſo hunt theſe animals with the ounce. This carnivorous and fierce creature being made tame and domeſtic, generally

ſits on horſeback behind the hunter, and remains there with the utmoſt compoſure, until the gazelle is ſhewn; it is then that it exerts all its arts and fierceneſs; it does not at once fly at its prey, but approaches ſlyly, turning and winding about until it comes within the proper diſtance, when all at once it bounds upon the heedleſs animal, and inſtantly kills it, and ſucks its blood. If, on the other hand, it miſſes its aim, it reſts in its place, without attempting to purſue any farther, but ſeems aſhamed of its own inability.

There is ſtill another way of taking the gazelle, which ſeems not ſo certain, nor ſo amuſing as either of the former. A tame gazelle is bred up for this purpoſe, who is taught to join thoſe of its kind, wherever it perceives them. When the hunter, therefore, perceives a herd of theſe together, he fixes a nooſe round the horns of the tame gazelle, in ſuch a manner, that if the reſt but touch it, they are entangled; and thus prepared he ſends his gazelle among the reſt. The tame animal no ſooner approaches, but the males of the herd inſtantly ſally forth to oppoſe him; and, in butting with their horns, are caught in the nooſe. In this, both ſtruggling for ſome time, fall together to the ground; and,

at laſt, the hunter coming up, diſengages the one, and kills the other. Upon the whole, however, theſe animals, whatever be the arts uſed to purſue them, are very difficult to be taken. As they are continually ſubject to alarms from carnivorous beaſts, or from man, they keep chiefly in the moſt ſolitary and inacceſſible places, and find their only protection from ſituations of the greateſt danger.

CHAP. IV.

Of the Muſk Animal.

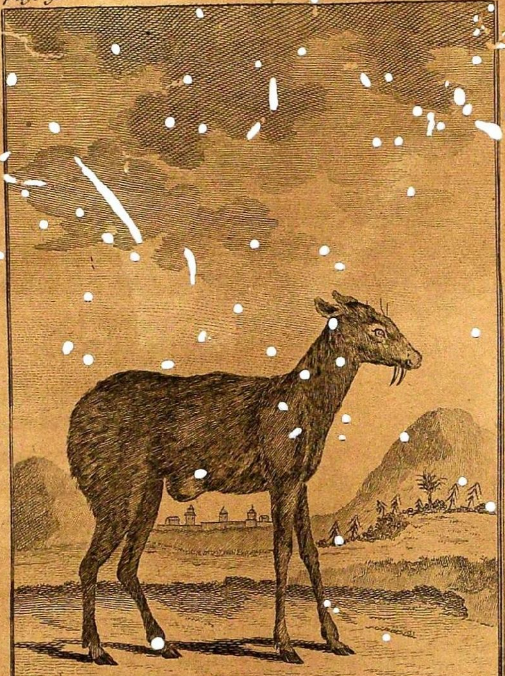
THE more we ſearch into nature, the more we ſhall find how little ſhe is known; and we ſhall more than once have occaſion to find, that protracted enquiry is more apt to teach us modeſty, than to produce information. Although the number and nature of quadrupedes at firſt glance ſeems very little known; yet, when we come to examine cloſer, we find ſome with which we are very partially acquainted, and others that are utterly unknown. There is ſcarce a cabinet of the curious but what has the ſpoils of animals, or the horns or the hoofs of quadrupedes, which do not come within former deſcriptions. There is ſcarce a perſon whoſe trade is to dreſs or improve furs, but knows ſeveral creatures by their ſkins, which no naturaliſt has hitherto had notice of. But of all quadrupedes, there is none ſo juſtly the reproach of natural hiſtorians, as that which bears the muſk. This perfume, ſo well known to the elegant, and ſo very uſeful in the hands of the phyſician, a medicine that has for more than a century been imported from the Eaſt in great quantities, and during all that time has

been improving in its reputation, is, neverthe-less, so very little understood, that it remains a doubt whether the animal that produces it be an hog, an ox, a goat, or a deer. When an animal with which we are so nearly connected, is so utterly unknown, how little must we know of many that are more remote and unserviceable! Yet naturalists proceed in the same train, enlarging their catalogues and their names, without endeavouring to find out the nature, and fix the precise history of those with which we are very partially acquainted. It is the spirit of the scholars of the present age, to be fonder of encreasing the bulk of our knowlege than its utility; of extending their conquests than of improving their empire.

The musk which comes to Europe, is brought over in small bags, about the size of a pigeon's egg, which, when cut open, appear to contain a kind of dusky reddish substance, like coagulated blood, and which, in large quantities, has a very strong smell; but when mixed and diffussed, becomes a very agreeable perfume. Indeed, no substance now known in the world has a stronger or a more permanent smell. A grain of musk perfumes a whole room; and its odour continues for some days, without diminution. But in a larger quantity it continues

for years together; and seems scarce wasted in its weight, although it has filled the atmosphere to a great distance with its parts. It is particularly used in medicine, in nervous and hysteric disorders; and is found, in such cases, to be the most powerful remedy now in use: however, the animal that furnishes this admirable medicine, has been very variously described, and is known but very imperfectly.

The description given of this animal by Grew, is as follows. The Musk animal is properly neither of the goat or deer kind, for it has no horns, and it is uncertain whether it ruminates or not; however, it wants the fore teeth in the upper jaw, in the same manner as in ruminating animals; but, at the same time, it has tusks like those of a hog. It is three feet six inches in length, from the head to the tail; and the head is above half a foot long. The fore part of the head is like that of a greyhound; and the ears are three inches long, and erect, like those of a rabbit; but the tail is not above two inches. It is cloven-footed, like beasts of the goat kind; the hair on the head and legs is half an inch long, on the belly an inch and an half, and on the back and buttocks three inches, and proportionably thicker than in any other animal. It is brown and white



De Seve del. Js. Taylor sculp

The Musk.

alternately, from the root to the point; on the head and thighs it is brown, but under the belly and tail white, and a little curled, especially on the back and belly. On each side of the lower jaw, under the corners of the mouth, there is a tuft of thick hair, which is short and hard, and about three quarters of an inch long. The hair, in general, of this animal, is remarkable for its softness and fine texture; but what distinguishes it particularly are the tusks, which are an inch and an half long, and turn back in the form of an hook; and more particularly the bag which contains the musk, which is three inches long, two broad, and stands out from the belly an inch and an half. It is a very fearful animal, and, therefore, it has long ears; and the sense of hearing is so quick, that it can discover an enemy at a great distance.

After so long and circumstantial a description of this animal, its nature is but very little known; nor has any anatomist as yet examined its internal structure; or been able to inform us whether it be a ruminant animal, or one of the hog kind; how the musk is formed, or whether those bags in which it comes to us be really belonging to the animal, or are only the sophistications of the venders. Indeed, when we con-

ſider the immenſe quantities of this ſubſtance which are conſumed in Europe alone, not to mention the Eaſt, where it is in ſtill greater repute than here, we can hardly ſuppoſe that any one animal can furniſh the ſupply; and particularly when it muſt be killed before the bag can be obtained. We are told, it is true, that the muſk is often depoſited by the animal upon trees and ſtones, againſt which it rubs itſelf when the quantity becomes uneaſy; but it is not in that form which we receive it, but always in what ſeems to be its own natural bladder. Of theſe, Taverner brought home near two thouſand in one year; and as the animal is wild, ſo many muſt, during that ſpace, have been hunted and taken. But as the creature is repreſented very ſhy, and as it is found but in ſome particular provinces of the Eaſt, the wonder is how its bag ſhould be ſo cheap, and furniſhed in ſuch great plenty. The bag in common does not coſt (if I do not forget) above a crown by retail, and yet this is ſuppoſed the only one belonging to the animal; and for the obtaining of which, it muſt have been hunted and killed. The only way of ſolving this difficulty, is to ſuppoſe that theſe bags are, in a great meaſure, counterfeit, taken from ſome other animal, or from ſome part of the ſame,

filled with its blood, and a very little of the perfume, but enough to impregnate the reſt with a ſtrong and permanent odour. It comes to us from different parts of the Eaſt; from China, Tonquin, Bengal, and often from Muſcovy: that of Thibet is reckoned the beſt, and ſells for fourteen ſhillings an ounce; that of Muſcovy the worſt, and ſells but for three; the odour of this, though very ſtrong at firſt, being quickly found to evaporate.

Muſk was ſome years ago in the higheſt requeſt as a perfume, and but little regarded as a medicine; but at preſent its reputation is totally changed; and having been found of great benefit in phyſic, it is but little regarded for the purpoſes of elegance. It is thus that things which become neceſſary, ceaſe to continue pleaſing; and the conſciouſneſs of their uſe, deſtroys their power of adminiſtering delight.

CHAP. V.

Animals of the Deer Kind.

IF we compare the ſtag and the bull as to ſhape and form, no two animals can be more unlike; and yet, if we examine their internal ſtructure, we ſhall find a ſtriking ſimilitude between them. Indeed, their differences, except to a nice obſerver, will ſcarcely be perceivable. All of the deer kind want the gall-bladder; their kidneys are formed differently; their ſpleen is alſo proportionably larger; their tail is ſhorter; and their horns, which are ſolid, are renewed every year. Such are the ſlight internal diſcriminations between two animals, one of which is among the ſwifteſt, and the other the heavieſt of the brute creation.

The ſtag is one of thoſe innocent and peaceable animals that ſeems made to embeliſh the foreſt, and animate the ſolitudes of nature. The eaſy elegance of his form, the lightneſs of his motions, thoſe large branches that ſeem made rather for the ornament of his head than its defence, the ſize, the ſtrength, and the ſwiftneſs of this beautiful creature, all ſufficiently rank him among the firſt of quadrupedes, among the moſt noted objects of human curioſity.

The Stag, or Hart, whose female is called a *hind*, and the young a *calf*, differs in size and in horns from a fallow deer. He is much larger, and his horns are round, whereas in the fallow kind they are broad and palmated. By these the animal's age is known. The first year, the stag has no horns, but an horny excrescence, which is short, rough, and covered with a thin hairy skin. The next year the horns are single and straight; the third year they have two antlers, three the fourth, four the fifth, and five the sixth; this number is not always certain, for sometimes there are more, and often less. When arrived at the sixth year, the antlers do not always encrease, and, although the number may amount to six or seven on each side, yet the animal's age is then estimated rather from the size of the antlers and the thickness of the branch which sustains them, than from their variety.

These horns, large as they seem, are, notwithstanding, shed every year, and new ones come in their place. The old horns are of a firm solid texture, and usually employed in making handles for knives and other domestic utensils. But, while young, nothing can be more soft or tender; and the animal, as if conscious of his own imbecility, at those times, in-

ſtantly upon ſhedding his former horns, retires from the reſt of his fellows, and hides himſelf in ſolitudes and thickets, never venturing out to paſture, except by night. During this time, which moſt uſually happens in the ſpring, the new horns are very painful, and have a quick ſenſibility of any external impreſſion. The flies alſo are extremely troubleſome to him. When the old horn is fallen off, the new does not begin immediately to appear; but the bones of the ſkull are ſeen covered only with a tranſparent perioſteum, or ſkin, which, as anatomiſts teach us, covers the bones of all animals. After a ſhort time, however, this ſkin begins to ſwell, and to form a ſoft tumour, which contains a great deal of blood, and which begins to be covered with a downy ſubſtance that has the feel of velvet, and appears nearly of the ſame colour with the reſt of the animal's hair. This tumour every day buds forward from the point like the graft of a tree; and, riſing by degrees from the head, ſhoots out the antlers on either ſide, ſo that in a few days, in proportion as the animal is in condition, the whole head is completed. However, as was ſaid above, in the beginning, its conſiſtence is very ſoft, and has a ſort of bark, which is no more than a continuation of the integument of the

the ſkull. It is velveted and downy, and every where furniſhed with blood-veſſels, that ſupply the growing horns with nouriſhment. As they creep along the ſides of the branches, the print is marked over the whole ſurface; and the larger the blood-veſſels, the deeper theſe marks are found to be: from hence ariſes the inequality of the ſurface of the deer's horns; which, as we ſee, are furrowed all along the ſides, the impreſſions diminiſhing towards the point, where the ſubſtance is as ſmooth and as ſolid as ivory. But it ought to be obſerved, that this ſubſtance, of which the horns is compoſed, begins to harden at the bottom while the upper part remains ſoft, and ſtill continues growing; from whence it appears that the horns grow differently in deer from thoſe of ſheep or cows; in which they are always ſeen to encreaſe from the bottom. However, when the whole head has received its full growth, the extremities then begin to acquire their ſolidity; the velvet covering, or bark, with its blood-veſſels, dry up, and then begin to fall; and this the animal haſtens, by rubbing its antlers againſt every tree it meets. In this manner, the whole external ſurface being ſtripped off by degrees, at length the whole head acquires its complete hardneſs, expanſion, and beauty.

It would be a vain taſk to enquire into the cauſe of the animal production of theſe horns; it is ſufficient to obſerve, that if a ſtag be caſtrated when its horns are fallen off, they will never grow again; and, on the contrary, if the ſame operation is performed when they are on, they will never fall off. If only one of his teſticles are taken out, he will want the horn on that ſide; if one of the teſticles only be tied up he will want the horn of the oppoſite ſide. The encreaſe of their proviſion alſo tends to facilitate the growth and the expanſion of the horns; and Mr. Buffon thinks it poſſible to retard their growth entirely, by greatly retrenching their food*. As a proof of this, nothing can be more obvious than the difference between a ſtag bred in fertile paſtures and undiſturbed by the hunter, and one often purſued and ill nouriſhed. The former has his head expanded, his antlers numerous, and the branches thick; the latter has but few antlers, the traces of the blood-veſſels upon them are but ſlight, and the expanſion but little. The beauty and ſize of their horns, therefore, mark their ſtrength and their vigour; ſuch of them as are ſickly, or have been wounded, never ſhooting out that magnificent profuſion ſo much

* Buffon, vol. xi. p. 113.

admired in this animal. Thus the horns may, in every reſpect, be reſembled to a vegetable ſubſtance, grafted upon the head of an animal. Like a vegetable they grow from the extremities; like a vegetable they are for a while covered with a bark that nouriſhes them; like a vegetable they have their annual production and decay; and a ſtrong imagination might ſuppoſe that the leafy productions on which the animal feeds, go once more to vegetate in his horns *.

The ſtag is uſually a twelvemonth old before the horns begin to appear, and then a ſingle branch is all that is ſeen for the year enſuing. About the beginning of ſpring, all of this kind are ſeen to ſhed their horns, which fall off of themſelves; though ſometimes the animal aſſiſts the efforts of nature, by rubbing them againſt a tree. It ſeldom happens that the branches on both ſides fall off at the ſame time, there often being two or three days between the dropping of the one and the other. The old ſtags uſually ſhed their horns firſt; which generally happens towards the latter end of February, or the beginning of March. Thoſe of the ſecond head, (namely, ſuch as are between

* Mr. Buffon has ſuppoſed ſomething like this. Vid. paſſim.

five and ſix years old) ſhed their horns about the middle or latter end of March; thoſe ſtill younger, in the month of April; and the youngeſt of all, not till the middle, or the latter end of May; they generally ſhed them in pools of water, whither they retire from the heat; and this has given riſe to the opinion of their always hiding their horns. Theſe rules, though true in general, are yet ſubject to many variations; and univerſally it is known that a ſevere winter retards the ſhedding of the horns.

The horns of the ſtag generally encreaſe in thickneſs and in height from the ſecond year of its age to the eighth. In this ſtate of perfection they continue during the vigour of life; but as the animal grows old the horns feel the impreſſions of age, and ſhrink like the reſt of the body. No branch bears more than twenty or twenty-two antlers even in the higheſt ſtate of vigour; and the number is ſubject to great variety; for it happens that the ſtag at one year has either leſs or more than the year preceding, in proportion to the goodneſs of his paſture, or the continuance of his ſecurity, as theſe animals ſeldom thrive when often rouzed by the hunters. The horns are alſo found to partake of the nature of the ſoil; in the more fertile paſtures they are large and tender; on the con-

trary, in the barren soil they are hard, ſtunted, and brittle.

As soon as the ſtags have ſhed their horns, they ſeparate from each other, and ſeek the plainer parts of the country, remote from every other animal, which they are utterly unable to oppoſe. They then walk with their heads ſtooping down, to keep their horns from ſtriking againſt the branches of the trees above. In this ſtate of imbecility they continue near three months before their heads have acquired their full growth and ſolidity; and then, by rubbing them againſt the branches of every thicket, they at length clear them of the ſkin which had contributed to their growth and nouriſhment. It is ſaid by ſome that the horn takes the colour of the ſap of the tree againſt which it is rubbed; and that ſome thus become red, when rubbed againſt the heath; and others brown, by rubbing againſt the oak; this, however, is a miſtake, ſince ſtags kept in parks where there are no trees, have a variety in the colour of their horns, which can be aſcribed to nothing but nature.

A ſhort time after they have furniſhed their horns, they begin to feel the impreſſions of the rut, or the deſire of copulation. The old ones are the moſt forward; and about the end of

Auguſt, or the beginning of September, they quit their thickets, and return to the mountain in order to ſeek the hind, to whom they call with a loud tremulous note. At this time their neck is ſwolen; they appear bold and furious; fly from country to country; ſtrike with their horns againſt the trees and other obſtacles, and continue reſtleſs and fierce until they have found the female; who at firſt flies from them, but is at laſt compelled and overtaken. When two ſtags contend for the ſame female, how timorous ſoever they may appear at other times, they then ſeem agitated with an uncommon degree of ardour. They paw up the earth, menace each other with their horns, bellow with all their force, and ſtriking in a deſperate manner againſt each other, ſeem determined upon death or victory. This combat continues till one of them is defeated or flies; and it often happens that the victor is obliged to fight ſeveral of thoſe battles before it remains undiſputed maſter of the field. The old ones are generally the conquerors upon theſe occaſions, as they have more ſtrength and greater courage; and theſe alſo are preferred by the hind to the young ones, as the latter are more feeble, and leſs ardent. However, they are all equally inconſtant, keep-

ing to the female but a few days, and then ſeeking out for another, not to be enjoyed, perhaps, without a repetition of their former danger.

In this manner the ſtag continues to range from one to the other for about three weeks, the time the rut continues; during which he ſcarce eats, ſleeps, or reſts, but continues to purſue, to combat, and to enjoy. At the end of this period of madneſs (for ſuch in this animal it ſeems to be), the creature that was before fat, ſleek, and gloſſy, becomes lean, feeble, and timid. He then retires from the herd to ſeek plenty and repoſe; he frequents the ſide of the foreſt, and chuſes the moſt nouriſhing paſtures, remaining there till his ſtrength is renewed. Thus is his whole life paſſed in the alternations of plenty and want, of corpulence and inanition, of health and ſickneſs, without having his conſtitution much affected by the violence of the change. As he is above five years coming to perfection, he lives about forty years; and it is a general rule, that every animal lives about ſeven or eight times the number of years which it continues to grow. What, therefore, is reported concerning the life of this animal, has ariſen from the credulity of ignorance: ſome ſay, that a ſtag having been

taken in France, with a collar, on which were written these words, "Cæsar hoc me donavit;" this was interpreted of Julius Cæsar; but it is not considered that Cæsar is a general name for kings; and that one of the Emperors of Germany, who are always stiled Cæsars, might have ordered the inscription.

This animal may differ in the term of his life according to the goodness of his pasture, or the undisturbed repose he happens to enjoy. These are advantages that influence not only his age, but his size and his vigour. The stags of the plains, the vallies, and the little hills, which abound in corn and pasture, are much more corpulent and much taller than such as are bred on the rocky waste, or the heathy mountain. The latter are low, small, and meagre, incapable of going so swift as the former, although they are found to hold out much longer. They are also more artful in evading the hunters; their horns are generally black and short, while those of the lowland stags are reddish and flourishing; so that the animal seems to encrease in beauty and stature in proportion to the goodness of the pasture, which he enjoys in security.

The usual colour of the stag in England was red; nevertheless, the greater number in other

countries are brown. There are some few that are white; but these seem to have obtained this colour in a former state of domestic tameness. Of all the animals that are natives of this climate, there are none that have such a beautiful eye as the stag: it is sparkling, soft, and sensible. His senses of smelling and hearing are in no less perfection. When he is in the least alarmed, he lifts the head and erects the ears, standing for a few minutes as if in a listening posture. Whenever he ventures upon some unknown ground, or quits his native covering, he first stops at the skirt of the plain to examine all around; he next turns against the wind to examine by the smell if there be any enemy approaching. If a person should happen to whistle or call out, at a distance, the stag is seen to stop short in his slow measured pace, and gazes upon the stranger with a kind of aukward admiration: if the cunning animal perceives neither dogs nor fire-arms preparing against him, he goes forward, quite unconcerned, and slowly proceeds without offering to fly. Man is not the enemy he is most afraid of; on the contrary, he seems to be delighted with the sound of the shepherd's pipe; and the hunters sometimes make use of that instrument to allure the poor animal to his destruction.

The ſtag eats ſlowly, and is very delicate in the choice of his paſture. When he has eaten a ſufficiency, he then retires to the covert of ſome thicket to chew the cud in ſecurity. His rumination, however, ſeems performed with much greater difficulty than with the cow or ſheep; for the graſs is not returned from the firſt ſtomach without much ſtraining, and a kind of hiccup, which is eaſily perceived during the whole time it continues. This may proceed from the greater length of his neck and the narrowneſs of the paſſage, all thoſe of the cow and the ſheep kind having it much wider.

This animal's voice is much ſtronger, louder, and more tremulous in proportion as he advances in age; in the time of rut it is even terrible. At that ſeaſon he ſeems ſo tranſported with paſſion that nothing obſtructs his fury; and, when at bay, he keeps the dogs off with great intrepidity. Some years ago, William Duke of Cumberland cauſed a tiger and a ſtag to be incloſed in the ſame area; and the ſtag made ſo bold a defence, that the tyger was at laſt obliged to fly. The ſtag ſeldom drinks in the winter, and ſtill leſs in the ſpring, while the plants are tender and covered over with dew. It is in the heat of ſummer, and during the time of rut, that he is ſeen conſtantly fre-

quenting the side of rivers and lakes, as well to slake his thirst as to cool his ardour. He swims with great ease and strength, and best at those times when he is fattest, his fat keeping him buoyant, like oil upon the surface of the water. During the time of rut he even ventures out to sea, and swims from one island to another, although there may be some leagues distance between them.

The cry of the hind, or female, is not so loud as that of the male, and is never excited but by apprehension for herself or her young. It need scarce be mentioned that she has no horns, or that she is more feeble or unfit for hunting than the male. When once they have conceived, they separate from the males, and then they both herd apart. The time of gestation continues between eight and nine months, and they generally produce but one at a time. Their usual season for bringing forth is about the month of May, or the beginning of June, during which they take great care to hide their young in the most obscure thickets. Nor is this precaution without reason, since almost every creature is then a formidable enemy. The eagle, the falcon, the osprey, the wolf, the dog, and all the rapacious family of the cat kind, are in continual

employment to find out her retreat. But, what is more unnatural ſtill, the ſtag himſelf is a profeſſed enemy, and ſhe is obliged to uſe all her arts to conceal her young from him as from the moſt dangerous of her purſuers. At this ſeaſon, therefore, the courage of the male ſeems transferred to the female: ſhe defends her young againſt her leſs formidable opponents by force; and when purſued by the hunter, ſhe ever offers herſelf to miſlead him from the principal object of her concern. She flies before the hounds for half the day, and then returns to her young, whoſe life ſhe has thus preſerved at the hazard of her own. The calf, for ſo the young of this animal is called, never quits the dam during the whole ſummer; and in winter, the hind, and all the males under a year old, keep together, and aſſemble in herds, which are more numerous in proportion as the ſeaſon is more ſevere. In the ſpring they ſeparate; the hinds to bring forth, while none but the year olds remain together; theſe animals are, however, in general fond of herding and grazing in company; it is danger or neceſſity alone that ſeparates them.

The dangers they have to fear from other animals, are nothing when compared to thoſe from man. The men of every age and nation

have made the chace of the ftag one of their moft favourite purfuits; and thofe who firft hunted from neceffity, have continued it for amufement. In our own country, in particular, hunting was ever efteemed as one of the principal diverfions of the great*. At firft, indeed, the beafts of chace had the whole ifland for their range, and knew no other limits than thofe of the ocean.

The Roman jurifprudence, which was formed on the manners of the firft ages, eftablifhed it as a law, that, as the natural right of things which have no mafter belongs to the firft poffeffor, wild beafts, birds, and fifhes, are the property of whofoever could firft take them. But the northern barbarians, who over-ran the Roman empire, bringing with them the ftrongeft relifh for this amufement, and, being now poffeffed of more eafy means of fubfiftence from the lands they had conquered, their chiefs and leaders began to appropriate the right of hunting, and, inftead of a natural right, to make it a royal one. When the Saxon kings, therefore, had eftablifhed themfelves into an heptarchy, the chaces were referved by each fovereign for his own particular amufement. Hunting and war, in thofe uncivilized ages,

* Britifh Zoology.

were the only employment of the great. Their active, but uncultivated, minds were ſuſceptible of no pleaſures but thoſe of a violent kind, ſuch as gave exerciſe to their bodies, and prevented the uneaſineſs of thinking. But as the Saxon kings only appropriated thoſe lands to the buſineſs of the chace which were unoccupied before, ſo no individuals received any injury. But it was otherwiſe when the Norman kings were ſettled upon the throne. The paſſion for hunting was then carried to an exceſs, and every civil right was involved in general ruin. This ardour for hunting was ſtronger than the conſideration of religion, even in a ſuperſtitious age. The village communities, nay, even the moſt ſacred edifices, were thrown down, and all turned into one vaſt waſte, to make room for animals, the object of a lawleſs tyrant's pleaſure. Sanguinary laws were enacted to preſerve the game; and, in the reigns of William Rufus and Henry the Firſt, it was leſs criminal to deſtroy one of the human ſpecies than a beaſt of chace. Thus it continued while the Norman line filled the throne; but when the Saxon line was reſtored, under Henry the Second, the rigour of the foreſt laws were ſoftened. The barons alſo for a long time imitated the encroachments, as well as the amuſements, of the monarch; but

when property became more equally divided, by the introduction of arts and industry, these extensive hunting grounds became more limited; and as tillage and husbandry encreased, the beasts of chace were obliged to give way to others more useful to community. Those vast tracts of land, before dedicated to hunting, were then contracted; and, in proportion as the useful arts gained ground, they protected and encouraged the labours of the industrious, and repressed the licentiousness of the sportsman. It is, therefore, among the subjects of a despotic government only that these laws remain in full force, where large wastes lie uncultivated for the purposes of hunting, where the husbandman can find no protection from the invasions of his lord, or the continual depredations of those animals which he makes the objects of his pleasure.

In the present cultivated state of this country, therefore, the stag is unknown in its wild natural state; and such of them as remain among us are kept, under the name of red deer, in parks among the fallow deer; but they are become less common than formerly. Its excessive viciousness, during the rutting season, and the badness of its flesh, inducing most people to part with the species. The few that still re-

main wild are to be found on the moors that border on Cornwall and Devonshire; and in Ireland, on most of the large mountains of that country.

In England, the hunting the stag and the buck are performed in the same manner; the animal is driven from some gentleman's park, and then hunted through the open country. But those who pursue the wild animal, have a much higher object, as well as a greater variety in the chace. To let loose a creature that was already in our possession, in order to catch it again, is, in my opinion, but a poor pursuit, as the reward when obtained is only what we before had given away. But to pursue an animal that owns no proprietor, and which he that first seizes may be said to possess, has something in it that seems at least more rational; this rewards the hunter for his toil, and seems to repay his industry. Besides, the superior strength and swiftness of the wild animal prolongs the amusement; it is possessed of more various arts to escape the hunter, and leads him to precipices where the danger ennobles the chace. In pursuing the animal let loose from a park, as it is unused to danger, it is but little versed in the stratagems of escape; the hunter follows as sure of overcoming, and feels none

of

of thoſe alternations of hope and fear which ariſe from the uncertainty of ſucceſs. But it is otherwiſe with the mountain ſtag: having ſpent his whole life in a ſtate of continual apprehenſion; having frequently been followed, and as frequently eſcaped, he knows every trick to miſlead, to confound, or intimidate his purſuers; to ſtimulate their ardour, and enhance their ſucceſs.

Thoſe who hunt this animal have their peculiar terms for the different objects of their purſuit. The profeſſors in every art take a pleaſure in thus employing a language known only to themſelves, and thus accumulate words which to the ignorant have the appearance of knowledge. In this manner, the ſtag is called the firſt year, a *calf*, or *hind calf*; the ſecond year, a *knobber*; the third, a *brock*; the fourth, a *ſtaggard*; the fifth, a *ſtag*; the ſixth, an *hart*. The female is called an *hind*; the firſt year ſhe is a *calf*; the ſecond, an *hearſe*; the third, an *hind*. This animal is ſaid to *harbour* in the place where he reſides. When he cries he is ſaid to *bell*; the print of his hoof is called the *ſlot*; his tail is called the *ſingle*; his excrement the *fewmet*; his horns are called his *head*: when ſimple, the firſt year, they are called *broches*; the third year, *ſpears*; the fourth year, that part

which bears the antlers is called the *beam*, and the little impressions upon its surface *glitters*; those which rise from the crust of the *beam* are called *pearls*. The antlers also have distinct names: the first that branches off is called the *antler*; the second the *fur antler*; all the rest which grow afterwards, till you come to the top, which is called the *crown*, are called *royal antlers*. The little buds about the tops are called *croches*. The impression on the place where the stag has lain, is called the *layer*. If it be in covert or a thicket, it is called his *harbour*. Where a deer has passed into a thicket, leaving marks whereby his bulk may be guessed, it is called an *entry*. When they cast their heads, they are said to *mew*. When they rub their heads against trees, to bring off the peel of their horns, they are said to *fray*. When a stag hard hunted takes to swimming in the water, he is said to *go sail*; when he turns his head against the hounds, he is said to *bay*; and when the hounds pursue upon the scent, until they have unharboured the stag, they are said to *draw on the slot*.

Such are but a few of the many terms used by hunters in pursuing of the stag, most of which are now laid aside, or in use only among game-keepers. The chace, however, is con-

tinued in many parts of the country where the red deer is preserved, and still makes the amusement of such as have not found out more liberal entertainments. In those few places where the animal is perfectly wild, the amusement, as was said above, is superior. The first great care of the hunter, when he leads out his hounds to the mountain side, where the deer are generally known to harbour, is to make choice of a proper stag to pursue. His ambition is to unharbour the largest and the boldest of the whole herd; and for this purpose he examines the track, if there be any, which if he finds long and large, he concludes, that it must have belonged to a stag, and not an hind, the print of whose foot is rounder. Those marks also which he leaves on trees, by the rubbing of his horns, shew his size, and point him out as the proper object of pursuit. Now to seek out a stag in his haunt, it is to be observed, that he changes his manner of feeding every month. From the conclusion of rutting-time, which is November, he feeds in heaths and broomy places. In December they herd together, and withdraw into the strength of the forests, to shelter themselves from the severer weather, feeding on holm, elder trees, and brambles. The three following months they

leave herding, but keep four or five in a company, and venture out to the corners of the foreſt, where they feed on winter paſture, ſometimes making their incurſions into the neighbouring corn-fields, to feed upon the tender ſhoots, juſt as they peep above ground. In April and May they reſt in thickets and ſhady places, and ſeldom venture forth, unleſs rouzed by approaching danger. In September and October their annual ardour returns; and then they leave the thickets, boldly facing every danger, without any certain place for food or harbour. When, by a knowledge of theſe circumſtances, the hunter has found out the reſidence, and the quality of his game, his next care is to uncouple and caſt off his hounds in the purſuit: theſe no ſooner perceive the timorous animal that flies before them, but they altogether open in full cry, purſuing rather by the ſcent than the view, encouraging each other to continue the chace, and tracing the flying animal with the moſt amazing ſagacity. The hunters alſo are not leſs ardent in their ſpeed on horſeback, cheering up the dogs, and directing them where to purſue. On the other hand, the ſtag, when unharboured, flies at firſt with the ſwiftneſs of the wind, leaving his purſuers ſeveral miles in the rear; and at length having

gained his former coverts, and no longer hearing the cries of the dogs and men that he had juſt left behind, he ſtops, gazes round him, and ſeems to recover his natural tranquility. But this calm is of ſhort duration, for his inveterate purſuers ſlowly and ſecurely trace him along, and he once more hears the approaching deſtruction from behind. He again, therefore, renews his efforts to eſcape, and again leaves his purſuers at almoſt the former diſtance; but this ſecond effort makes him more feeble than before, and when they come up a ſecond time, he is unable to outſtrip them with equal velocity. The poor animal now, therefore, is obliged to have recourſe to all his little arts of eſcape, which ſometimes, though but ſeldom, avail him. In proportion as his ſtrength fails him, the ardour of his purſuers is enflamed; he tracks more heavily on the ground, and this encreaſing the ſtrength of the ſcent, redoubles the cries of the hounds, and enforces their ſpeed. It is then that the ſtag ſeeks for refuge among the herd, and tries every artifice to put off ſome other head for his own. Sometimes he will ſend forth ſome little deer in his ſtead, in the mean time lying cloſe himſelf, that the hounds may overſhoot him. He will break into one thicket after another to find deer, rouſing them, gathering

them together, and endeavouring to put them upon the tracks he has made. His old companions, however, with a true ſpirit of ingratitude, now all forſake and ſhun him with the moſt watchful induſtry, leaving the unhappy creature to take his fate by himſelf. Thus abandoned of his fellows, he again tries other arts, by doubling and croſſing in ſome hard beaten highway, where the ſcent is leaſt perceivable. He now alſo runs againſt the wind, not only to cool himſelf, but the better to hear the voice, and judge of the diſtance of his implacable purſuers. It is now eaſily perceivable how ſorely he is preſſed, by his manner of running, which from the bounding eaſy pace with which he begun, is converted into a ſtiff and ſhort manner of going; his mouth alſo is black and dry, without foam on it; his tongue hangs out; and the tears, as ſome ſay, are ſeen ſtarting from his eyes. His laſt refuge, when every other method of ſafety has failed him, is to take the water, and to attempt an eſcape by croſſing whatever lake or river he happens to approach. While ſwimming, he takes all poſſible care to keep in the middle of the ſtream, leſt, by touching the bough of a tree, or the herbage on the banks, he may give ſcent to the hounds. He is alſo ever found to ſwim

against the ſtream; whence the huntſmen have made it into a kind of proverb, *That he that would his chace find, muſt up with the river and down with the wind.* On this occaſion too he will often cover himſelf under water, ſo as to ſhew nothing but the tip of his noſe. Every reſource, and every art being at length exhauſted, the poor creature tries the laſt remains of his ſtrength, by boldly oppoſing thoſe enemies he cannot eſcape; he therefore faces the dogs and men, threatens with his horns, guards himſelf on every ſide, and for ſome time ſtands at bay. In this manner, quite deſperate, he furiouſly aims at the firſt dog or man that approaches; and it often happens that he does not die unrevenged. At that time, the more prudent, both of the dogs and men, ſeem willing to avoid him; but the whole pack quickly coming up, he is ſoon ſurrounded and brought down, and the huntſman winds a *treble mort*, as it is called, with his horn.

Such is the manner of purſuing this animal in England; but every country has a peculiar method of its own, adapted either to the nature of the climate, or the face of the ſoil. The ancient manner was very different from that practiſed at preſent; they uſed their dogs only to find out the game, but not to rouze it.

Hence they were not curious as to the music of their hounds, or the composition of their pack; the dog that opened before he had discovered his game, was held in no estimation. It was their usual manner silently to find out the animal's retreat, and surround it with nets and engines, then to drive him up with all their cries, and thus force him into the toils which they had previously prepared.

In succeeding times the fashion seemed to alter; and particularly in Sicily, the manner of hunting was as follows*. The nobles and gentry being informed which way an herd of deer passed, gave notice to one another, and appointed a day of hunting. For this purpose, every one was to bring a cross-bow, or a long bow, and a bundle of staves, shod with iron, the heads bored, with a cord passing through them all. Thus provided, they came to where the herd continued grazing, and casting themselves about in a large ring, surrounded the deer on every side. Then each taking his stand, unbound his faggot, set up his stake, and tied the end of the cord to that of his next neighbour, at the distance of about ten feet one from the other. Between each of these stakes was hung a bunch of crimson feathers, and so

* Pier. Hieroglyph. lib. vii, cap. 6.

diſpoſed, that with the leaſt breath of wind they would whirl round, and preſerve a ſort of fluttering motion. This done, the perſons who ſet up the ſtaves withdrew, and hid themſelves in the neighbouring coverts: then the chief huntſman, entering with his hounds within the lines, rouzed the game with a full cry. The deer, frighted, and flying on all ſides, upon approaching the lines, were ſcared away by the fluttering of the feathers, and wandered about within this artificial paling, ſtill awed by the ſhining and fluttering plumage that encircled their retreat: the huntſman, however, ſtill purſuing, and calling every perſon by name, as he paſſed by their ſtand, commanded him to ſhoot the firſt, third, or ſixth, as he pleaſed; and if any of them miſſed, or ſingled out another than that aſſigned him, it was conſidered as a moſt ſhameful miſchance. In this manner, however, the whole herd was at laſt deſtroyed; and the day concluded with mirth and feaſting.

The ſtags of China are of a particular kind, for they are no taller than a common houſe-dog; and hunting them is one of the principal diverſions of the great. Their fleſh, while young, is exceedingly good; but when they arrive at maturity, it begins to grow hard and tough: however, the tongue, the muzzle, and

the ears, are in particular eſteem among that luxurious people. Their manner of taking them is ſingular enough: they carry with them the heads of ſome of the females ſtuffed, and learn exactly to imitate their cry; upon this the male does not fail to appear, and looking on all ſides, perceives the head, which is all that the hunter, who is himſelf concealed, diſcovers. Upon their nearer approach, the whole company riſe, ſurround, and often take him alive.

There are very few varieties in the red deer of this country; and they are moſtly found of the ſame ſize and colour. But it is otherwiſe in different parts of the world, where they are ſeen to differ in form, in ſize, in horns, and in colour.

The ſtag of Corſica is a very ſmall animal, being not above half the ſize of thoſe common among us. His body is ſhort and thick, his legs ſhort, and his hair of a dark brown.

There is in the foreſts of Germany, a kind of ſtag, named by the ancients the Tragelaphus, and which the natives call the Bran Deer, or the Brown Deer. This is of a darker colour than the common ſtag, of a lighter ſhade upon the belly, long hair upon the neck and throat, by which it appears bearded, like the goat.

There is also a very beautiful stag, which by some is said to be a native of Sardinia; but others (among whom is Mr. Buffon) are of opinion that it comes from Africa or the East Indies. He calls it the Axis, after Pliny; and considers it as making the shade between the stag and the fallow deer. The horns of the axis are round, like those of the stag; but the form of its body entirely resembles that of the buck, and the size also is exactly the same. The hair is of four colours; namely, fallow, white, black, and grey. The white is predominant under the belly, on the inside of the thighs, and the legs. Along the back there are two rows of spots in a right line; but those on other parts of the body are very irregular. A white line runs along each side of this animal, while the head and neck are grey. The tail is black above, and white beneath; and the hair upon it is six inches long.

Although there are but few individuals of the deer kind, yet the race seems diffused over all parts of the earth. The new continent of America, in which neither the sheep, the goat, nor the gazelle, have been originally bred, nevertheless produces stags, and other animals of the deer kind, in sufficient plenty. The Mexicans have a breed of white stags in their

parks, which they call Stags Royal*. The ſtags of Canada differ from ours in nothing except the ſize of the horns, which in them is greater; and the direction of the antlers, which rather turn back, than project forward, as in thoſe of Europe. The ſame difference of ſize that obtains among our ſtags, is alſo to be ſeen in that country; and, as we are informed by Ruyſch, the Americans have brought them into the ſame ſtate of domeſtic tameneſs that we have our ſheep, goats, or black cattle. They ſend them forth in the day-time to feed in the foreſts; and at night they return home with the herdſman who guards them. The inhabitants have no other milk but what the hind produces; and uſe no other cheeſe but what is made from thence. In this manner we find, that an animal which ſeems made only for man's amuſement, may be eaſily brought to ſupply his neceſſities. Nature has many ſtores of happineſs and plenty in reſerve, which only want the call of induſtry to be produced, and now remain as candidates for human approbation.

* Buffon, vol. xii. p. 35.

THE FALLOW DEER.

NO two animals can be more nearly allied than the ſtag and the fallow deer*. Alike in form, alike in diſpoſition, in the ſuperb furniture of their heads, in their ſwiftneſs and timidity; and yet no two animals keep more diſtinct, or avoid each other with more fixed animoſity. They are never ſeen to herd in the ſame place, they never engender together, or form a mixed breed; and even in thoſe countries where the ſtag is common, the buck ſeems to be entirely a ſtranger. In ſhort, they both form diſtinct families; which, though ſo ſeemingly near, are ſtill remote; and although with the ſame habitudes, yet retain an unalterable averſion.

The fallow deer, as they are much ſmaller, ſo they ſeem of a nature leſs robuſt, and leſs ſavage than thoſe of the ſtag kind. They are found but rarely wild in the foreſts; they are, in general, bred up in parks, and kept for the purpoſes of hunting, or of luxury, their fleſh being preferred to that of any other animal. It need ſcarce be mentioned, that the horns of the buck make its principal diſtinction, being broad and palmated; whereas thoſe of the ſtag

* Buffon, vol. xii. p. 36.

are in every part round. In the one, they are flatted and ſpread like the palm of the hand; in the other they grow like a tree, every branch being of the ſhape of the ſtem that bears it. The fallow deer alſo has the tail longer, and the hair lighter than the ſtag; in other reſpects, they pretty nearly reſemble one another.

The head of the buck, as of all other animals of this kind, is ſhed every year, and takes the uſual time for repairing. The only difference between it and the ſtag is, that this change happens later in the buck; and its rutting time, conſequently, falls more into the winter. It is not found ſo furious at this ſeaſon as the former; nor does it ſo much exhauſt itſelf by the violence of its ardour. It does not quit its natural paſtures in queſt of the female, nor does it attack other animals with indiſcriminate ferocity: however, the males combat for the female among each other; and it is not without many conteſts, that one buck is ſeen to become maſter of the whole herd.

It often happens alſo, that an herd of fallow deer is ſeen to divide into two parties, and engage each other with great ardour and obſtinacy*. They both ſeem deſirous of gaining ſome favourite ſpot of the park for paſture,

* Buffon, vol. xii. p. 36.

and of driving the vanquiſhed party into the coarſer and more diſagreeable parts. Each of theſe factions has its particular chief; namely, the two oldeſt and ſtrongeſt of the herd. Theſe lead on to the engagement; and the reſt follow under their direction. Theſe combats are ſingular enough, from the diſpoſition and conduct which ſeems to regulate their mutual efforts. They attack with order, and ſupport the aſſault with courage; they come to each other's aſſiſtance, they retire, they rally, and never give up the victory upon a ſingle defeat. The combat is renewed for ſeveral days together; until at length the moſt feeble ſide is obliged to give way, and is content to eſcape to the moſt diſagreeable part of the park, where only they can find ſafety and protection.

The fallow deer is eaſily tamed, and feeds upon many things which the ſtag refuſes. By this means it preſerves its veniſon better; and even after rutting, it does not appear entirely exhauſted. It continues almoſt in the ſame ſtate through the whole year, although there are particular ſeaſons when its fleſh is chiefly in eſteem. This animal alſo browzes cloſer than the ſtag; for which reaſon it is more prejudical among young trees, which it often ſtrips too cloſe for recovery. The young deer

eat much faſter and more greedily than the old: they ſeek the female at their ſecond year, and, like the ſtag, are fond of variety. The doe goes with young above eight months, like the hind; and commonly brings forth one at a time: but they differ in this, that the buck comes to perfection at three, and lives till ſix-teen; whereas the ſtag does not come to perfection till ſeven, and lives till forty.

As this animal is a beaſt of chace, like the ſtag, ſo the hunters have invented a number of names relative to him. The buck is the firſt year called a *fawn*; the ſecond, a *pricket*; the third, a *ſorel*; the fourth, a *ſore*; the fifth, a *buck of the firſt head*; and the ſixth, a *great buck*: The female is called a *doe*; the firſt year a *fawn*; and the ſecond a *tegg*. The manner of hunting the buck is pretty much the ſame as that of ſtag hunting, except that leſs ſkill is required in the latter. The buck is more eaſily rouzed; it is ſufficient to judge by the view, and mark what grove or covert it enters, as it is not known to wander far from thence; nor, like the ſtag, to change his *layer*, or place of repoſe. When hard hunted, it takes to ſome ſtrong hold or covert with which it is acquainted, in the more gloomy parts of the wood, or the ſteeps of the mountain; not like

the ſtag, flying far before the hounds, nor croſſing nor doubling, nor uſing any of the ſubtleties which the ſtag is accuſtomed to. It will take the water when ſorely preſſed, but ſeldom a great river; nor can it ſwim ſo long, nor ſo ſwiftly, as the former. In general, the ſtrength, the cunning and the courage of this animal, are inferior to thoſe of the ſtag; and, conſequently, it affords neither ſo long, ſo various, nor ſo obſtinate a chace: beſides, being lighter, and not tracking ſo deeply, it leaves a leſs powerful and laſting ſcent, and the dogs in the purſuit are more frequently at a fault.

As the buck is a more delicate animal than the ſtag, ſo alſo is it ſubject to greater varieties*. We have in England two varieties of the fallow-deer, which are ſaid to be of foreign origin. The beautiful ſpotted kind, which is ſuppoſed to have been brought from Bengal; and the very deep brown ſort, that are now ſo common in ſeveral parts of this kingdom. Theſe were introduced by king James the Firſt, from Norway: for having obſerved their hardineſs, and that they could endure the winter, even in that ſevere climate, without fodder, he brought over ſome of them into Scotland, and diſpoſed of them among his chaces. Since that time, they have

* Britiſh Zoology.

multiplied in many parts of the Britiſh empire; and England is now become more famous for its veniſon, than any other country in the world. Whatever pains the French have taken to rival us in this particular, the fleſh of their fallow-deer, of which they keep but a few, has neither the fatneſs nor the flavour of that fed upon Engliſh paſture.

However, there is ſcarce a country in Europe, except far to the northward, in which this animal is a ſtranger. The Spaniſh fallow-deer are as large as ſtags, but of a darker colour, and a more ſlender neck: their tails are longer than thoſe of ours, they are black above, and white below. The Virginian deer are larger and ſtronger than ours, with great necks, and their colour inclinable to grey. Other kinds have the hoofs of their hind legs marked outwardly with a white ſpot; and their ears and tails much longer than the common. One of theſe has been ſeen full of white ſpots, with a black liſt down the middle of his back. In Guiana, a country of South America, according to Labat, there are deer without horns, which are much leſs than thoſe of Europe, but reſembling them in every other particular. They are very lively, light of courſe, and exceſſively fearful; their hair is of a reddiſh fallow, their

heads are ſmall and lean, their ears little, their necks long and arched, the tail ſhort, and the ſight piercing. When purſued, they fly into places where no other animal can follow them. The Negroes, who purſue them, ſtand to watch for them in narrow paths, which lead to the brook or the meadow where they feed; there waiting in the utmoſt ſilence, for the ſlighteſt ſound will drive them away, the Negroe, when he perceives the animal within reach, ſhoots, and is happy if he can bring down his game. Their fleſh, though ſeldom fat, is conſidered as a great delicacy, and the hunter is well rewarded for his trouble.

THE ROE-BUCK.

THE roe-buck is the ſmalleſt of the deer kind known in our climate, and is now almoſt extinct among us, except in ſome parts of the highlands of Scotland. It is generally about three feet long, and about two feet high. The horns are from eight to nine inches long, upright, round, and divided into only three branches. The body is covered with very long hair, well adapted to the rigour of its mountainous abode. The lower part of each hair is aſh-colour; near the ends is a narrow

bar of black, and the points are yellow. The hairs on the face are black, tipped with ash-colour. The ears are long; their insides of pale yellow, and covered with long hair. The spaces bordering on the eyes and mouth, are black. The cheſt, belly, and legs, and the inſide of the thighs, are of a yellowiſh white; the rump is of a pure white, and the tail very ſhort. The make of this little animal is very elegant; and its ſwiftneſs equals its beauty. It differs from the fallow-deer, in having round horns, and not flatted like theirs. It differs from the ſtag, in its ſmaller ſize, and the proportionable paucity of its antlers: and it differs from all of the goat kind, as it annually ſheds its head, and obtains a new one, which none of that kind are ever ſeen to do.

As the ſtag frequents the thickeſt foreſts, and the ſides of the higheſt mountains, the roe-buck, with humbler ambition, courts the ſhady thicket, and the riſing ſlope. Although leſs in ſize and far inferior in ſtrength to the ſtag, it is yet more beautiful, more active, and even more courageous. Its hair is always ſmooth, clean, and gloſſy; and it frequents only the drieſt places, and of the pureſt air. Though but a very little animal, as we have already obſerved, yet, when its young is attacked, it

faces even the ſtag himſelf, and often comes off victorious *. All its motions are elegant and eaſy; it bounds without effort, and continues the courſe with but little fatigue. It is alſo poſſeſſed of more cunning in avoiding the hunter, is more difficult to purſue, and, although its ſcent is much ſtronger than that of the ſtag, it is more frequently found to make good a retreat. It is not with the roe-buck, as with the ſtag, who never offers to uſe art until his ſtrength is beginning to decline; this more cunning animal, when it finds that its firſt efforts to eſcape are without ſucceſs, returns upon its former track, again goes forward, and again returns, until by its various windings it has entirely confounded the ſcent, and joined the laſt emanations to thoſe of its former courſe. It then, by a bound, goes to one ſide, lies flat upon its belly, and permits the pack to paſs by very near, without offering to ſtir.

But the roe-buck differs not only from the ſtag in ſuperior cunning, but alſo in its natural appetites, its inclinations, and its whole habits of living. Inſtead of herding together, theſe animals live in ſeparate families; the ſire, the dam, and the young ones, aſſociate together,

* Buffon, vol. xii. p. 75.

and never admit a ſtranger into their little community. All others of the deer kind are inconſtant in their affection; but the roe-buck never leaves its mate; and as they have been generally bred up together, from their firſt fawning, they conceive ſo ſtrong an attachment, the male for the female, that they never after ſeparate. Their rutting-ſeaſon continues but fifteen days; from the latter end of October, to about the middle of November. They are not at that time, like the ſtag, overloaded with fat; they have not that ſtrong odour, which is perceived in all others of the deer kind; they have none of thoſe furious exceſſes; nothing, in ſhort, that alters their ſtate: they only drive away their fawns upon theſe occaſions; the buck forcing them to retire, in order to make room for a ſucceeding progeny: however, when the copulating ſeaſon is over, the fawns return to their does, and remain with them ſome time longer; after which, they quit them entirely, in order to begin an independent family of their own. The female goes with young but five months and an half; which alone ſerves to diſtinguiſh this animal from all others of the deer kind, that continue pregnant more than eight. In this reſpect, ſhe rather approaches more nearly to the goat kind; from which,

however, this race is ſeparated by the male's annual caſting its horns.

When the female is ready to bring forth ſhe ſeeks a retreat in the thickeſt part of the woods, being not leſs apprehenſive of the buck, from whom ſhe then ſeparates, than of the wolf, the wild cat, and almoſt every ravenous animal of the foreſt; ſhe generally produces two at a time, and three but very rarely. In about ten or twelve days theſe are able to follow their dam, except in caſes of warm purſuit, when their ſtrength is not equal to the fatigue. Upon ſuch occaſions, the tenderneſs of the dam is very extraordinary; leaving them in the deepeſt thickets, ſhe offers herſelf to the danger, flies before the hounds, and does all in her power to lead them from the retreat where ſhe has lodged her little ones. Such animals as are nearly upon her own level ſhe boldly encounters; attacks the ſtag, the wild cat, and even the wolf; and while ſhe has life continues her efforts to protect her young. Yet all her endeavours are often vain; about the month of May, which is her fawning time, there is a greater deſtruction among thoſe animals than at any other ſeaſon of the year. Numbers of the fawns are taken alive by the peaſants; numbers are found out, and worried by the dogs;

and ſtill more by the wolf, which has always been their moſt inveterate enemy. By theſe continual depredations upon this beautiful creature, the roe-buck is every day becoming ſcarcer; and the whole race in many countries is wholly worn out. They were once common in England; the huntſmen, who characteriſed only ſuch beaſts as they knew, have given names to the different kinds and ages, as to the ſtag: thus they called it the firſt year an *hind*; the ſecond, a *gyrle*; and the third, an *hemuſe*; but theſe names at preſent are utterly uſeleſs, ſince the animal no longer exiſts among us. Even in France, where it was once extremely common, it is now confined to a few provinces; and it is probable that in an age or two the whole breed will be utterly extirpated. Mr. Buffon, indeed, obſerves, that in thoſe diſtricts where it is moſtly found, it ſeems to maintain its uſual plenty, and that the balance between its deſtruction and encreaſe is held pretty even; however, the number in general is known to decreaſe; for wherever cultivation takes place, the beaſts of nature are known to retire. Many animals that once flouriſhed in the world may now be extinct; and the deſcriptions of Ariſtotle and Pliny, though taken from life, may be conſidered as fabulous, as their archetypes are no longer exiſting.

The fawns continue to follow the deer eight or nine months in all; and upon ſeparating, their horns begin to appear, ſimple and without antlers the firſt year, as in thoſe of the ſtag kind*. Theſe they ſhed at the latter end of autumn, and renew during the winter; differing in this from the ſtag, who ſheds them in ſpring, and renews them in ſummer. When the roe-buck's head is completely furniſhed, it rubs the horns againſt trees in the manner of the ſtag, and thus ſtrips them of the rough ſkin and the blood-veſſels, which no longer contribute to their nouriſhment and growth. When theſe fall, and new ones begin to appear, the roe-buck does not retire as the ſtag to the covert of the wood, but continues its uſual haunts, only keeping down its head to avoid ſtriking its horns againſt the branches of trees, the pain of which it ſeems to feel with exquiſite ſenſibility. The ſtag, who ſheds his horns in ſummer, is obliged to ſeek a retreat from the flies, that at that time greatly incommode him; but the roe-buck, who ſheds them in winter, is under no ſuch neceſſity; and, conſequently, does not ſeparate from its little family, but keeps with the female all the year round†.

As the growth of the roe-buck, and its arrival

* Buffon, vol. xii. p. 88.

† Buffon, ibid.

at maturity, is much ſpeedier than that of the ſtag, ſo its life is proportionably ſhorter. It ſeldom is found to extend above twelve or fifteen years; and if kept tame it does not live above ſix or ſeven. It is an animal of a very delicate conſtitution, requiring variety of food, air, and exerciſe. It muſt be paired with a female, and kept in a park of at leaſt an hundred acres. They may eaſily be ſubdued, but never thoroughly tamed. No arts can teach them to be familiar with the feeder, much leſs attached to him. They ſtill preſerve a part of their natural wildneſs, and are ſubject to terrors without a cauſe. They ſometimes, in attempting to eſcape, ſtrike themſelves with ſuch force, againſt the walls of their incloſure, that they break their limbs, and become utterly diſabled. Whatever care is taken to tame them, they are never entirely to be relied on, as they have capricious fits of fierceneſs, and ſometimes ſtrike at thoſe they diſlike with a degree of force that is very dangerous.

The cry of the roe-buck is neither ſo loud nor ſo frequent as that of the ſtag. The young ones have a particular manner of calling to the dam, which the hunters eaſily imitate, and often thus allure the female to her deſtruction. Upon ſome occaſions alſo they become in a

manner intoxicated with their food, which, during the ſpring, is ſaid to ferment in their ſtomachs, and they are then very eaſily taken. In ſummer they keep cloſe under covert of the foreſt, and ſeldom venture out, except in violent heats, to drink at ſome river or fountain. In general, however, they are contented to ſlake their thirſt with the dew that falls on the graſs and the leaves of trees, and ſeldom riſque their ſafety to ſatisfy their appetite. They delight chiefly in hilly grounds, preferring the tender branches and buds of trees to corn, or other vegetables; and it is univerſally allowed that the fleſh of thoſe between one and two years old is the greateſt delicacy that is known. Perhaps, alſo, the ſcarceneſs of it enhances its flavour.

In America this animal is much more common than in Europe. With us there are but two known varieties; the red, which is the larger ſort; and the brown, with a ſpot behind, which is leſs. But in the new continent the breed is extremely numerous, and the varieties in equal proportion. In Louiſiana, where they are extremely common, they are much larger than in Europe, and the inhabitants live in a great meaſure upon its fleſh, which taſtes like mutton when well fatted. They are found alſo in

Brasil, where they have the name of Cuguacu Apara, only differing from ours in some slight deviations in the horns. This animal is also said to be common in China; although such as have described it seem to confound it with the musk-goat, which is of a quite different nature.

THE ELK.

WE have hitherto been describing minute animals in comparison of the Elk; the size of which, from concurrent testimony, appears to be equal to that of the elephant itself. It is an animal rather of the buck than the stag kind, as its horns are flatted towards the top; but it is far beyond both in stature, some of them being known to be above ten feet high. It is a native both of the old and new continent, being known in Europe under the name of the Elk, and in America by that of the Moose-deer. It is sometimes taken in the German and Russian forests, although seldom appearing; but it is extremely common in North America, where the natives pursue, and track it in the snow. The accounts of this animal are extremely various; some describing it as being no higher than an horse, and others above twelve feet high.

As the stature of this creature makes its chief

De Seve del. Is. Taylor sculp.

The Female Moose or Elk.

peculiarity, so it were to be wished that we could come to some precision upon that head. If we were to judge of its size by the horns, which are sometimes fortuitously dug up in many parts of Ireland, we should not be much amiss in ascribing them to an animal at least ten feet high. One of these I have seen, which was ten feet nine inches from one tip to the other. From such dimensions, it is easy to perceive that it required an animal far beyond the size of an horse to support them. To bear an head with such extensive and heavy antlers, required no small degree of strength; and without all doubt the bulk of the body must have been proportionable to the size of the horns. I remember, some years ago, to have seen a small moose-deer, which was brought from America, by a gentleman of Ireland; it was about the size of an horse, and the horns were very little larger than those of a common stag: this, therefore, serves to prove that the horns bear an exact proportion to the animal's size; the small elk has but small horns; whereas those enormous ones, which we have described above, must have belonged to a proportionable creature. In all the more noble animals, nature observes a perfect symmetry; and it is not to be supposed she fails in this single instance.

We have no reafon, therefore, to doubt the accounts of Joffelyn and Dudley, who affirm, that they have been found fourteen fpans: which, at nine inches to a fpan, makes the animal almoft eleven feet high. Others have extended their accounts to twelve and fourteen feet, which makes this creature one of the moft formidable of the foreft.

There is but very little difference between the European elk, and the American moofe-deer, as they are but varieties of the fame animal. It may be rather larger in America than with us; as in the forefts of that unpeopled country, it receives lefs difturbance than in our own. In all places, however, it is timorous and gentle; content with its pafture, and never willing to difturb any other animal, when fupplied itfelf.

The European elk grows to above feven or eight feet high. In the year 1742, there was a female of this animal fhewn at Paris, which was caught in a foreft of Red Ruffia, belonging to the Cham of Tartary*; it was then but young, and its height was even at that time fix feet feven inches; but the defcriber obferves, that it has fince become much taller and thicker, fo that we may fuppofe this female at leaft

* Dictionnaire Raifonnée des Animaux. Au Nom, Elan.

ſeven feet high. There have been no late opportunities of ſeeing the male; but by the rule of proportion, we may eſtimate his ſize at eight or nine feet at the leaſt, which is about twice as high as an ordinary horſe. The height, however of the female, which was meaſured, was but ſix feet ſeven inches, Paris meaſure; or almoſt ſeven Engliſh feet high. It was ten feet from the tip of the noſe to the inſertion of the tail; and eight feet round the body. The hair was very long and coarſe, like that of a wild boar. The ears reſembled thoſe of a mule, and were a foot and an half long. The upper jaw was longer, by ſix inches, than the lower; and, like other ruminating animals, it had no teeth (cutting teeth I ſuppoſe the deſcriber means). It had a large beard under the throat, like a goat; and in the middle of the forehead, between the horns, there was a bone as large as an egg. The noſtrils were four inches long on each ſide of the mouth. It made uſe of its fore feet, as a defence againſt its enemies. Thoſe who ſhewed it, aſſerted, that it ran with aſtoniſhing ſwiftneſs; that it ſwam alſo with equal expedition, and was very fond of the water. They gave it thirty pounds of bread every day, beſide hay, and it drank eight

buckets of water. It was tame and familiar, and submissive enough to its keeper.

This description differs in many circumstances from that which we have of the moose, or American elk, which the French call the Original. Of these there are two kinds, the common light grey moose, which is not very large; and the black moose, which grows to an enormous height. Mr. Dudley observes, that a doe or hind of the black moose kind, of the fourth year, wanted but an inch of seven feet high. All, however, of both kinds, have flat palmed horns, not unlike the fallow-deer, only that the palm is much larger, having a short trunk at the head, and then immediately spreading above a foot broad, with a kind of small antlers, like teeth, on one of the edges. In this particular, all of the elk kind agree; as well the European elk, as the grey and the black moose-deer.

The grey moose-deer is about the size of an horse; and although it has large buttocks, its tail is not above an inch long. As in all of this kind the upper lip is much longer than the under, it is said that they continue to go backward as they feed. Their nostrils are so large that a man may thrust his hand in a considerable

way;

way; and their horns are as long as thoſe of a ſtag, but, as was obſerved, much broader.

The black mooſe is the enormous animal mentioned above, from eight to twelve feet high. Joſſelyn, who is the firſt Engliſh writer that mentions it, ſays, that it is a goodly creature, twelve feet high, with exceeding fair horns, that have broad palms, two fathoms from the top of one horn to another. He aſſures us, that it is a creature, or rather a monſter of ſuperfluity, and many times bigger than an Engliſh ox. This account is confirmed by Dudley; but he does not give ſo great an expanſion to the horns, meaſuring them only thirty-one inches between one tip and the other: however, that ſuch an extraordinary animal as Joſſelyn deſcribes, has actually exiſted, we can make no manner of doubt of, ſince there are horns common enough to be ſeen among us, twelve feet from one tip to the other.

Theſe animals delight in cold countries, feeding upon graſs in ſummer, and the bark of trees in winter. When the whole country is deeply covered with ſnow, the mooſe-deer herd together under the tall pine-trees, ſtrip off the bark, and remain in that part of the foreſt while it yields them ſubſiſtence. It is at that time that the natives prepare to hunt them;

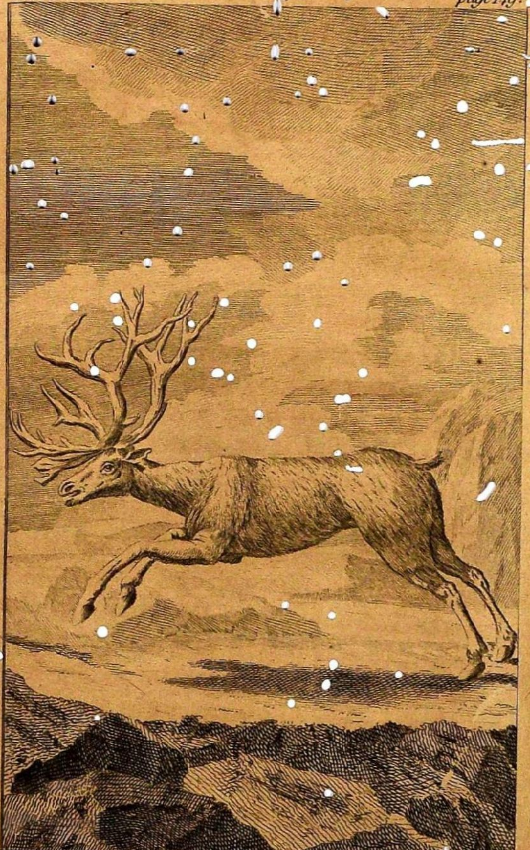
and particularly when the ſun begins to melt the ſnow by day, which is frozen again at night; for then the icy cruſt which covers the ſurface of the ſnow, is too weak to ſupport ſo great a bulk, and only retards the animal's motion. When the Indians, therefore, perceive an herd of theſe at a diſtance, they immediately prepare for their purſuit, which is not, as with us, the ſport of an hour, but is attended with toil, difficulty, and danger *. The timorous animal ſo ſooner obſerves its enemies approach, than it immediately endeavours to eſcape, but ſinks at every ſtep it takes. Still, however, it purſues its way through a thouſand obſtacles: the ſnow, which is uſually four feet deep, yields to its weight, and embarraſſes its ſpeed; the ſharp ice wounds its feet; and its lofty horns are entangled in the branches of the foreſt, as it paſſes along. The trees, however, are broken down with eaſe; and wherever the mooſe-deer runs, it is perceived by the ſnapping off the branches of trees, as thick as a man's thigh, with its horns. The chace laſts in this manner for the whole day; and ſometimes it has been known to continue for two, nay three days together; for the purſuers are often not leſs excited by famine, than the purſued by fear.

* Phil. Tranſ. vol. ii. p. 436.

Their perſeverance, however, generally ſucceeds; and the Indian who firſt comes near enough, darts his lance, with unerring aim, which ſticks in the poor animal, and at firſt encreaſes its efforts to eſcape. In this manner the mooſe trots heavily on, (for that is its uſual pace) till its purſuers once more come up, and repeat their blow: upon this, it again ſummons up ſufficient vigour to get a-head; but, at laſt, quite tired, and ſpent with loſs of blood, it ſinks, as the deſcriber expreſſes it, like a ruined building, and makes the earth ſhake beneath its fall.

This animal, when killed, is a very valuable acquiſition to the hunters. The fleſh is very well taſted, and ſaid to be very nouriſhing. The hide is ſtrong, and ſo thick, that it has been often known to turn a muſket-ball; however, it is ſoft and pliable, and, when tanned, the leather is extremely light, yet very laſting. The fur is a light grey in ſome, and blackiſh in others; and, when viewed through a microſcope, appears ſpongy like a bulruſh, and is ſmaller at the roots and points than in the middle; for this reaſon, it lies very flat and ſmooth, and though beaten or abuſed never ſo much, it always returns to its former ſtate. The

horns alſo are not leſs uſeful, being applied to all the purpoſes for which hartſhorn is beneficial: theſe are different in different animals; in ſome they reſemble entirely thoſe of the European elk, which ſpread into a broad palm, with ſmall antlers on one of the edges; in others they have a branched brow-antler between the bur and the palm, which the German elk has not; and in this they entirely agree with thoſe whoſe horns are ſo frequently dug up in Ireland. This animal is ſaid to be troubled with the epilepſy, as it is often found to fall down when purſued, and thus becomes an eaſier prey; for this reaſon, an imaginary virtue has been aſcribed to the hinder hoof, which ſome have ſuppoſed to be a ſpecific againſt all epileptic diſorders. This, however, may be conſidered as a vulgar error; as well as that of its curing itſelf of this diſorder by applying the hinder hoof behind the ear. After all, this animal is but very indifferently and confuſedly deſcribed by travellers; each mixing his account with ſomething falſe or trivial; often miſtaking ſome other quadrupede for the elk, and confounding its hiſtory. Thus ſome have miſtaken it for the rein-deer, which in every thing but ſize it greatly reſembles; ſome have ſuppoſed it to be the ſame with the



De Seve del. Js. Taylor sculp.

The Rein Deer.

Tapurette *, from which it entirely differs; some have described it as the common red American stag, which scarcely differs from our own; and, lastly, some have confounded it with the Bubalus, which is more properly a gazelle of Africa †.

THE REIN-DEER.

OF all animals of the deer kind, the Rein-Deer is the most extraordinary and the most useful. It is a native of the icy regions of the north; and though many attempts have been made to accustom it to a more southern climate, it shortly feels the influence of the change, and in a few months declines and dies. Nature seems to have fitted it entirely to answer the necessities of that hardy race of mankind that live near the pole. As these would find it impossible to subsist among their barren snowy mountains without its aid, so this animal can live only there, where its assistance is most absolutely necessary. From it alone the natives of Lapland and Greenland supply most of their wants; it answers the purposes of an horse, to convey them and their scanty furniture from one mountain to another; it answers

* Condamine. † Dapper, Description de l'Afrique, p. 17.

the purposes of a cow, in giving milk; and it answers the purposes of the sheep, in furnishing them with a warm, though an homely kind of cloathing. From this quadrupede alone, therefore, they receive as many advantages as we derive from three of our most useful creatures; so that Providence does not leave these poor outcasts entirely destitute, but gives them a faithful domestic, more patient and serviceable than any other in nature.

The rein-deer resembles the American elk in the fashion of its horns. It is not easy in words to describe these minute differences; nor will the reader, perhaps, have a distinct idea of the similitude, when told that both have brow-antlers, very large, and hanging over their eyes, palmated towards the top, and bending forward, like a bow. But here the similitude between these two animals ends; for, as the elk is much larger than the stag, so the rein-deer is much smaller. It is lower and stronger built than the stag; its legs are shorter and thicker, and its hoofs much broader than in that animal; its hair is much thicker and warmer, its horns much larger in proportion, and branching forward over its eyes; its ears are much larger; its pace is rather a trot than a bounding, and this it can continue for a whole

day; its hoofs are cloven and moveable, so that it spreads them abroad as it goes, to prevent its sinking in the snow. When it proceeds on a journey, it lays its great horns on its back, while there are two branches which always hang over its forehead, and almost cover its face. One thing seems peculiar to this animal and the elk; which is, that as they move along, their hoofs are heard to crack with a pretty loud noise. This arises from their manner of treading; for as they rest upon their cloven hoof, it spreads on the ground, and the two divisions separate from each other; but when they lift it, the divisions close again, and strike against each other with a crack. The female also of the rein-deer has horns as well as the male, by which the species is distinguished from all other animals of the deer kind whatsoever.

When the rein-deer first shed their coat of hair, they are brown; but, in proportion as summer approaches, their hair begins to grow whitish; until, at last, they are nearly grey *. They are, however, always black about the eyes. The neck has long hair, hanging down,

* For the greatest part of this description of the Rein-Deer, I am obliged to Mr. Hoffberg; upon whose authority, being a native of Sweden, and an experienced naturalist, we may confidently rely.

and coarſer than upon any other part of the body. The feet, juſt at the inſertion of the hoof, are ſurrounded with a ring of white. The hair in general ſtands ſo thick over the whole body, that if one ſhould attempt to ſeparate it, the ſkin will no where appear uncovered: whenever it falls alſo, it is not ſeen to drop from the root, as in other quadrupedes, but ſeems broken ſhort near the bottom; ſo that the lower part of the hair is ſeen growing, while the upper falls away.

The horns of the female are made like thoſe of the male, except that they are ſmaller and leſs branching. As in the reſt of the deer kind, they ſprout from the points; and alſo in the beginning are furniſhed with an hairy cruſt, which ſupports the blood-veſſels, of moſt exquiſite ſenſibility. The rein-deer ſhed their horns, after rutting-time, at the latter end of November; and they are not completely furniſhed again till towards autumn. The female always retains hers till ſhe brings forth, and then ſheds them, about the beginning of November. If ſhe be barren, however, which is not unfrequently the caſe, ſhe does not ſhed them till winter. The caſtration of the rein-deer does not prevent the ſhedding of their horns; thoſe which are the ſtrongeſt, caſt them

early in winter; those which are more weakly, not so soon. Thus, from all these circumstances, we see how greatly this animal differs from the common stag. The female of the rein-deer has horns, which the hind is never seen to have; the rein-deer, when castrated, renews its horns, which we are assured the stag never does: it differs not less in its habits and manner of living, being tame, submissive, and patient; while the stag is wild, capricious, and unmanageable.

The rein-deer, as was said, is naturally an inhabitant of the countries bordering on the arctic circle. It is not unknown to the natives of Siberia. The North Americans also hunt it, under the name of the *caribou*. But in Lapland, this animal is converted to the utmost advantage; and some herdsmen of that country are known to possess above a thousand in a single herd.

Lapland is divided into two districts, the mountainous and the woody. The mountainous part of the country is at best barren and bleak, excessively cold, and uninhabitable during the winter; still, however, it is the most desirable part of this frightful region, and is most thickly peopled during the summer. The natives generally reside on the declivity of the mountains,

three or four cottages together, and lead a chearful and a ſocial life. Upon the approach of winter, they are obliged to migrate into the plains below, each bringing down his whole herd, which often amounts to more than a thouſand, and leading them where the paſture is in greateſt plenty. The woody part of the country is much more deſolate and hideous. The whole face of nature there preſents a frightful ſcene of trees without fruit, and plains without verdure. As far as the eye can reach, nothing is to be ſeen, even in the midſt of ſummer, but barren fields, covered only with a moſs, almoſt as white as ſnow; no graſs, no flowery landſcapes, only here and there a pine-tree, which may have eſcaped the frequent conflagrations by which the natives burn down their foreſts. But what is very extraordinary, as the whole ſurface of the country is cloathed in white, ſo, on the contrary, the foreſts ſeem to the laſt degree dark and gloomy. While one kind of moſs makes the fields look as if they were covered with ſnow, another kind blackens over all their trees, and even hides their verdure. This moſs, however, which deforms the country, ſerves for its only ſupport, as upon it alone the rein-deer can ſubſiſt. The inhabitants, who, during the ſum-

mer, lived among the mountains, drive down their herds in winter, and people the plains and woods below. Such of the Laplanders as inhabit the woods and the plains all the year round, live remote from each other, and having been used to solitude, are melancholy, ignorant, and helpless. They are much poorer also than the mountaineers, for, while one of those is found to possess a thousand rein-deer at a time, none of these are ever known to rear the tenth part of that number. The rein-deer makes the riches of this people; and the cold mountainy parts of the country agree best with its constitution. It is for this reason, therefore, that the mountains of Lapland are preferred to the woods; and that many claim an exclusive right to the tops of hills, covered in almost eternal snow.

As soon as the summer begins to appear, the Laplander who had fed his rein-deer upon the lower grounds, during the winter, then drives them up to the mountains, and leaves the woody country, and the low pasture, which at that season are truly deplorable. The gnats, bred, by the sun's heat, in the marshy bottoms, and the weedy lakes, with which the country abounds more than any other part of the world, are all upon the wing, and fill the whole air,

like clouds of duſt in a dry windy day. The inhabitants, at that time, are obliged to daub their faces with pitch, mixed with milk, to ſhield their ſkins from their depredations. All places are then ſo greatly infeſted, that the poor natives can ſcarce open their mouths without fear of ſuffocation; the inſects enter, from their numbers and minuteneſs, into the noſtrils and the eyes, and do not leave the ſufferer a moment at his eaſe. But they are chiefly enemies to the rein-deer: the horns of that animal being then in their tender ſtate, and poſſeſſed of extreme ſenſibility, a famiſhed cloud of inſects inſtantly ſettle upon them, and drive the poor animal almoſt to diſtraction. In this extremity, there are but two remedies, to which the quadrupede, as well as its maſter, are obliged to have recourſe. The one is, for both to take ſhelter near their cottage, where a large fire of tree moſs is prepared, which filling the whole place with ſmoke, keeps off the gnat, and thus, by one inconvenience, expels a greater; the other is, to aſcend to the higheſt ſummit of the mountains, where the air is too thin, and the weather too cold, for the gnats to come. There the rein-deer are ſeen to continue the whole day, although without food, rather than to venture down into the lower parts,

where they can have no defence against their unceasing persecutors.

Besides the gnat, there is also a gadfly, that, during the summer season, is no less formidable to them. This insect is bred under their skins, where the egg has been deposited the preceding summer; and it is no sooner produced as a fly, than it again endeavours to deposite its eggs in some place similar to that from whence it came. Whenever, therefore, it appears flying over an herd of rein-deer, it puts the whole body, how numerous soever, into motion; they know their enemy, and do all they can, by tossing their horns, and running among each other, to terrify or avoid it. All their endeavours, however, are too generally without effect; the gadfly is seen to deposite its eggs, which burrowing under the skin, wound it in several places, and often bring on an incurable disorder.

In the morning, therefore, as soon as the Lapland herdsman drives his deer to pasture, his greatest care is to keep them from scaling the summits of the mountains where there is no food, but where they go merely to be at ease from the gnats and gadflies that are ever annoying them. At this time, there is a strong contest between the dogs and the deer; the one

endeavouring to climb up against the side of the hill, and to gain those summits that are covered in eternal snows; the other, forcing them down, by barking and threatening, and, in a manner, compelling them into the places where their food is in the greatest plenty. There the men and dogs confine them; guarding them with the utmost precaution the whole day, and driving them home at the proper seasons for milking.

The female brings forth in the middle of May, and gives milk till about the middle of October. Every morning and evening, during the summer, the herdsman returns to the cottage with his deer to be milked, where the women previously have kindled up a smoky fire, which effectually drives off the gnats, and keeps the rein-deer quiet while milking. The female furnishes about a pint, which, though, thinner than that of the cow, is, nevertheless, sweeter and more nourishing. This done, the herdsman drives them back to pasture; as he neither folds nor houses them, neither provides for their subsistence during the winter, nor improves their pasture by cultivation.

Upon the return of the winter, when the gnats and flies are no longer to be feared, the Laplander descends into the lower grounds;

and, as there are but few to dispute the possession of that desolate country, he has an extensive range to feed them in. Their chief and almost their only food at that time, is the white moss already mentioned; which, from its being fed upon by this animal, obtains the name of the *lichen rangiferinus.* This is of two kinds: the woody lichen, which covers almost all the desert parts of the country like snow; the other is black, and covers the branches of the trees in very great quantities. However unpleasing these may be to the spectator, the native esteems them as one of his choicest benefits, and the most indulgent gift of nature. While his fields are cloathed with moss, he envies neither the fertility nor the verdure of the more southern landscape; dressed up warmly in his deer-skin cloaths, with shoes and gloves of the same materials, he drives his herds along the desert; fearless and at ease, ignorant of any higher luxury than what their milk and smoke-dried flesh afford them. Hardened to the climate, he sleeps in the midst of ice; or awaking, dozes away his time with tobacco; while his faithful dogs supply his place, and keep the herd from wandering. The deer, in the mean time, with instincts adapted to the soil, pursue their food, though covered in the deepest snow. They turn it up

with their noſes, like ſwine; and even though its ſurface be frozen and ſtiff, yet the hide is ſo hardened in that part, that they eaſily overcome the difficulty. It ſometimes, however, happens, though but rarely, that the winter commences with rain, and a froſt enſuing, covers the whole country with a glazed cruſt of ice. Then, indeed, both the rein-deer and the Laplander are undone; they have no proviſions laid up in caſe of accident, and the only reſource is to cut down the large pine-trees, that are covered with moſs, which furniſhes but a ſcanty ſupply; ſo that the greateſt part of the herd is then ſeen to periſh, without a poſſibility of aſſiſtance. It ſometimes alſo happens, that even this ſupply is wanting; for the Laplander often burns down his woods, in order to improve and fertilize the ſoil which produces the moſs, upon which he feeds his cattle.

In this manner the paſtoral life is ſtill continued near the pole; neither the coldneſs of the winter, nor the length of the nights, neither the wildneſs of the foreſt, nor the vagrant diſpoſition of the herd, interrupt the even tenour of the Laplander's life. By night and day he is ſeen attending his favourite cattle, and remains unaffected, in a ſeaſon which would be ſpeedy death to thoſe bred up in a milder climate. He

gives

gives himſelf no uneaſineſs to houſe his herds or to provide a winter ſubſiſtence for them; he is at the trouble neither of manuring his grounds, nor bringing in his harveſts; he is not the hireling of another's luxury; all his labours are to obviate the neceſſities of his own ſituation; and theſe he undergoes with chearfulneſs, as he is ſure to enjoy the fruits of his own induſtry. If, therefore, we compare the Laplander with the peaſant of more ſouthern climates, we ſhall have little reaſon to pity his ſituation; the climate in which he lives is rather terrible to us than to him; and, as for the reſt, he is bleſſed with liberty, plenty, and eaſe. The rein-deer alone ſupplies him with all the wants of life, and ſome of the conveniencies, ſerving to ſhew how many advantages nature is capable of ſupplying, when neceſſity gives the call. Thus, the poor, little, helpleſs native, who was originally, perhaps, driven by fear or famine into thoſe inhoſpitable climates, would ſeem, at firſt view, to be the moſt wretched of mankind: but it is far otherwiſe; he looks round among the few wild animals that his barren country can maintain, and ſingles out one from among them, and that of a kind which the reſt of mankind have not thought worth taking from a ſtate of nature;

this he cultivates, propagates, and multiplies, and from this alone derives every comfort that can ſoften the ſeverity of his ſituation.

The rein-deer of this country are of two kinds, the wild and the tame. The wild are larger and ſtronger, but more miſchievous than the others. Their breed, however, is preferred to that of the tame; and the female of the latter is often ſent into the woods, from whence ſhe returns home impregnated by one of the wild kind. Theſe are fitter for drawing the ſledge, to which the Laplander accuſtoms them betimes, and yoaks them to it by a ſtrap, which goes round the neck, and comes down between their legs. The ſledge is extremely light, and ſhod at the bottom, with the ſkin of a young deer, the hair turned to ſlide on the frozen ſnow. The perſon who ſits on this guides the animal with a cord, faſtened round the horns, and encourages it to proceed with his voice, and drives it with a goad. Some of the wild breed, though by far the ſtrongeſt, are yet found refractory, and often turn upon their drivers, who have then no other reſource but to cover themſelves with their ſledge, and let the animal vent its fury upon that. But it is otherwiſe with thoſe that are tame; no creature can be more active, patient, and willing: when hard puſhed,

they will trot nine or ten Swedish miles, or between fifty and sixty English miles, at one stretch. But, in such a case, the poor obedient creature fatigues itself to death; and, if not prevented by the Laplander, who kills it immediately, it will die a day or two after. In general, they can go about thirty miles without halting, and this without any great or dangerous efforts. This, which is the only manner of travelling in that country, can be performed only in winter, when the snow is glazed over with ice; and although it be a very speedy method of conveyance, yet it is inconvenient, dangerous, and troublesome.

In order to make their animals more obedient, and more generally serviceable, they castrate them; which operation the Laplanders perform with their teeth; these become sooner fat when taken from labour; and they are found to be stronger in drawing the sledge. There is usually one male left entire for every six females; these are in rut from the feast of St. Matthew to about Michaelmas. At this time, their horns are thoroughly burnished, and their battles among each other are fierce and obstinate. The females do not begin to breed till they are two years old; and then they continue regularly breeding every year till they are su-

perannuated. They go with young above eight months, and generally bring forth two at a time. The fondneſs of the dam for her young is very remarkable; it often happens that when they are ſeparated from her, ſhe will return from paſture, keep calling round the cottage for them, and will not deſiſt until, dead or alive, they are brought and laid at her feet. They are at firſt of a light brown; but they become darker with age; and at laſt the old ones are of a brown almoſt approaching to blackneſs. The young follow the dam for two or three years; but they do not acquire their full growth until four. They are then broke in, and managed for drawing the ſledge; and they continue ſerviceable for four or five years longer. They never live above fifteen or ſixteen years; and, when they arrive at the proper age, the Laplander generally kills them for the ſake of their ſkins and their fleſh. This he performs by ſtriking them on the back of the neck, with his knife, into the ſpinal marrow; upon which they inſtantly fall, and he then cuts the arteries that lead to the heart, and lets the blood diſcharge itſelf into the cavity of the breaſt.

There is ſcarce any part of this animal that is not converted to its peculiar uſes. As ſoon as it begins to grow old, and ſome time before

the rut, it is killed, and the fleſh dried in the air. It is alſo ſometimes hardened with ſmoke, and laid up for travelling proviſion, when the natives migrate from one part of the country to another. During the winter, the rein-deer are ſlaughtered as ſheep with us; and every four perſons in the family are allowed one rein-deer for their week's ſubſiſtence. In ſpring, they ſpare the herd as much as they can, and live upon freſh fiſh. In ſummer, the milk and curd of the rein-deer makes their chief proviſion; and, in autumn, they live wholly upon fowls, which they kill with a croſs-bow, or catch in ſpringes. Nor is this ſo ſcanty an allowance; ſince, at that time, the ſea-fowls come in ſuch abundance, that their ponds and ſprings are covered over. Theſe are not ſo ſhy as with us, but yield themſelves an eaſy prey. They are chiefly allured to thoſe places by the ſwarms of gnats which infeſt the country during ſummer, and now repay the former inconveniencies, by inviting ſuch numbers of birds as ſupply the natives with food a fourth part of the year, in great abundance.

The milk, when newly taken, is warmed in a cauldron, and thickened with rennet, and then the curd is preſſed into cheeſes, which are little and well taſted. Theſe are never found to

breed mites as the cheeſe of other countries, probably becauſe the mite-fly is not to be found in Lapland. The whey which remains is warmed up again, and becomes of a conſiſtence as if thickened with the white of eggs. Upon this the Laplanders feed during the ſummer; it is pleaſant and well taſted, but not very nouriſhing. As to butter they very ſeldom make any, becauſe the milk affords but a very ſmall quantity, and this, both in taſte and conſiſtence, is more nearly reſembling to ſuet. They never keep their milk till it turns ſour; and do not dreſs it into the variety of diſhes which the more ſouthern countries are known to do. The only delicacy they make from it is with wood ſorrel, which being boiled up with it, and coagulating, the whole is put into caſks, or deer-ſkins, and kept under ground to be eaten in winter.

The ſkin is even a more valuable part of this animal than either of the former. From that part of it which covered the head and feet, they make their ſtrong ſnow ſhoes with the hair on the outſide. Of the other parts they compoſe their garments, which are extremely warm, and which cover them all over. The hair of theſe alſo is on the outſide; and they ſometimes line them within with the fur of the Glutton, or ſome other warm furred animal of that cli-

mate. These skins also serve them for beds. They spread them on each side of the fire, upon some leaves of the dwarf birch-tree, and in this manner lie both soft and warm. Many garments, made of the skin of the rein-deer, are sold every year to the inhabitants of the more southern parts of Europe; and they are found so serviceable in keeping out the cold, that even people of the first rank are known to wear them.

In short, no part of this animal is thrown away as useless. The blood is preserved in small casks, to make sauce with the marrow in spring. The horns are sold to be converted into glue. The sinews are dried, and divided so as to make the strongest kind of sowing thread, not unlike catgut. The tongues, which are considered as a great delicacy, are dried, and sold into the more southern provinces. The intestines themselves are washed like our tripe, and in high esteem among the natives. Thus the Laplander finds all his necessities amply supplied from this single animal; and he who has a large herd of these animals has no idea of higher luxury.

But, although the rein-deer be a very hardy and vigorous animal, it is not without its diseases. I have already mentioned the pain it

feels from the gnat, and the apprehenſions it is under from the gad-fly. Its hide is often found pierced in an hundred places, like a ſieve, from this inſect, and not a few die in their third year, from this very cauſe. Their teats alſo are ſubject to cracking, ſo that blood comes inſtead of milk. They ſometimes take a loathing for their food; and, inſtead of eating, ſtand ſtill, and chew the cud. They are alſo troubled with a vertigo, like the elk, and turn round often till they die. The Laplander judges of their ſtate by the manner of their turning. If they turn to the right, he judges their diſorder but ſlight; if they turn to the left, he deems it incurable. The rein-deer are alſo ſubject to ulcers near the hoof, which unqualifies them for travelling, or keeping with the herd. But the moſt fatal diſorder of all is that which the natives call the ſuddataka, which attacks this animal at all ſeaſons of the year. The inſtant it is ſeized with this diſeaſe it begins to breathe with greater difficulty, its eyes begin to ſtare, and its noſtrils to expand. It acquires alſo an unuſual degree of ferocity, and attacks all it meets indiſcriminately. Still, however, it continues to feed as if in health, but is not ſeen to chew the cud, and it lies down more frequently than before. In this manner it continues, every day

conſuming and growing more lean, till at laſt it dies from mere inanition; and not one of theſe that are attacked with this diſorder are ever found to recover. Notwithſtanding, it is but very lately known in that part of the world; although, during the laſt ten or fifteen years, it has ſpoiled whole provinces of this neceſſary creature. It is contagious; and the moment the Laplander perceives any of his herd infected, he haſtens to kill them immediately, before it ſpreads any farther. When examined internally, there is a frothy ſubſtance found in the brain, and round the lungs; the inteſtines are lax and flabby, and the ſpleen is diminiſhed almoſt to nothing. The Laplander's only cure in all theſe diſorders, is to anoint the animal's back with tar; if this does not ſucceed, he conſiders the diſeaſe as beyond the power of art; and, with his natural phlegm, ſubmits to the ſeverities of fortune.

Beſides the internal maladies of this animal, there are ſome external enemies which it has to fear. The bears now and then make depredations upon the herd; but of all their perſecutors, the creature called the Glutton is the moſt dangerous and the moſt ſucceſsful. The war between theſe is carried on not leſs in Lapland than in North America, where the rein-deer is

called the Caribou, and the Glutton the Carcajou. This animal, which is not above the fize of a badger, waits whole weeks together for its prey, hid in the branches of fome fpreading tree; and when the wild rein-deer paffes underneath, it inftantly drops down upon it, fixing its teeth and claws into the neck, juft behind the horns. It is in vain that the wounded animal then flies for protection, that it ruftles among the branches of the foreft, the Glutton ftill holds its former pofition; and although it often lofes a part of its fkin and flefh, which are rubbed off againft the trees, yet it ftill keeps faft, until its prey drops with fatigue and lofs of blood. The deer has but one only method of efcape, which is by jumping into the water; that element its enemy cannot endure; for, as we are told, it quits its hold immediately, and then thinks only of providing for its own proper fecurity.

CHAP.

CHAP. VI.

Of Quadrupedes of the Hog Kind.

ANIMALS of the hog kind ſeem to unite in themſelves all thoſe diſtinctions by which others are ſeparated. They reſemble thoſe of the horſe kind in the number of their teeth, which in all amount to forty-four, in the length of their head, and in having but a ſingle ſtomach. They reſemble the cow kind in their cloven hoofs and the poſition of their inteſtines; and they reſemble thoſe of the claw-footed kind in their appetite for fleſh, in their not chewing the cud, and in their numerous progeny. Thus this ſpecies ſerves to fill up that chaſm which is found between the carnivorous kinds and thoſe that live upon graſs; being poſſeſſed of the ravenous appetite of the one, and the inoffenſive nature of the other. We may conſider them, therefore, as of a middle nature, which we can refer neither to the rapacious nor the peaceful kinds, and yet partaking ſomewhat of the nature of both. Like the rapacious kinds, they are found to have ſhort inteſtines; their hoofs alſo, though cloven to the ſight, will, upon anatomical inſpection, appear to be ſupplied with bones like beaſts of prey; and the

number of their teats alſo encreaſe the ſimilitude: on the other hand, in a natural ſtate they live upon vegetables, and ſeldom ſeek after animal food, except when urged by neceſſity. They offend no other animal of the foreſt, at the ſame time that they are furniſhed with arms to terrify the braveſt.

The Wild Boar, which is the original of all the varieties we find in this creature, is by no means ſo ſtupid nor ſo filthy an animal as that we have reduced to tameneſs; he is much ſmaller than the tame hog, and does not vary in his colour as thoſe of the domeſtic kind do, but is always found of an iron grey, inclining to black; his ſnout is much longer than that of the tame hog, and the ears are ſhorter, rounder, and black; of which colour are alſo the feet and the tail. He roots the ground in a different manner from the common hog; for as this turns up the earth in little ſpots here and there, ſo the wild boar plows it up like a furrow, and does irreparable damage in the cultivated lands of the farmer. The tuſks alſo of this animal are larger than in the tame breed, ſome of them being ſeen almoſt a foot long *. Theſe, as is well known, grow from both the under and upper jaw, bend upwards circu-

* Buffon, vol. ix. p. 147.

larly, and are exceeding ſharp at the points. They differ from the tusks of the elephant in this, that they never fall; and it is remarkable of all the hog kind, that they never ſhed their teeth as other animals are ſeen to do. The tuſks of the lower jaw are always the moſt to be dreaded, and are found to give very terrible wounds.

The wild boar can properly be called neither a ſolitary nor a gregarious animal. The three firſt years the whole litter follows the ſow, and the family lives in a herd together. They are then called beaſts of company, and unite their common forces againſt the invaſions of the wolf, or the more formidable beaſts of prey. Upon this their principal ſafety while young depends, for when attacked they give each other mutual aſſiſtance, calling to each other with a very loud and fierce note; the ſtrongeſt face the danger; they form a ring, and the weakeſt fall into the center. In this poſition few ravenous beaſts dare venture to attack them, but purſue the chace where there is leſs reſiſtance and danger. However, when the wild boar is come to a ſtate of maturity, and when conſcious of his own ſuperior ſtrength, he then walks the foreſt alone, and fearleſs. At that time he dreads no ſingle creature, nor does he turn out of his way even

for man himſelf. He does not ſeek danger, and he does not much ſeem to avoid it.

This animal is therefore ſeldom attacked, but at a diſadvantage, either by numbers, or when found ſleeping by moon-light. The hunting the wild boar is one of the principal amuſements of the nobility in thoſe countries where it is to be found. The dogs provided for this ſport are of the ſlow heavy kind. Thoſe uſed for hunting the ſtag, or the roe-buck, would be very improper, as they would too ſoon come up with their prey; and, inſtead of a chace, would only furniſh out an engagement. A ſmall maſtiff is therefore choſen; nor are the hunters much mindful of the goodneſs of their noſe, as the wild boar leaves ſo ſtrong a ſcent, that it is impoſſible for them to miſtake its courſe. They never hunt any but the largeſt and the oldeſt, which are known by their tracks. When the boar is *rear'd*, as is the expreſſion for driving him from his covert, he goes ſlowly and uniformly forward, not much afraid, nor very far before his purſuers. At the end of every half mile, or thereabouts, he turns round, ſtops till the hounds come up, and offers to attack them. Theſe, on the other hand, knowing their danger, keep off, and bay him at a diſtance. After they have for a while gazed

upon each other, with mutual animosity, the boar again slowly goes on his course, and the dogs renew their pursuit. In this manner the charge is sustained, and the chace continues till the boar is quite tired, and refuses to go any farther. The dogs then attempt to close in upon him from behind; those which are young, fierce, and unaccustomed to the chace, are generally the foremost, and often lose their lives by their ardour. Those which are older and better trained are content to wait until the hunters come up, who strike at him with their spears, and, after several blows, dispatch or disable him. The instant the animal is killed, they cut off the testicles, which would otherwise give a taint to the flesh; and the huntsmen celebrate the victory with their horns.

The hog, in a natural state, is found to feed chiefly upon roots and vegetables; it seldom attacks any other animal, being content with such provisions as it procures without danger. Whatever animal happens to die in the forest, or is so wounded that it can make no resistance, becomes a prey to the hog, who seldom refuses animal food, how putrid soever, although it is never at the pains of taking or procuring it alive. For this reason, it seems a glutton rather by accident than choice, content with ve-

getable food, and only devouring flesh when pressed by necessity, and when it happens to offer. Indeed, if we behold the hog in its domestic state, it is the most sordid and brutal animal in nature *. The aukwardness of its form seems to influence its appetites; and all its sensations are as gross as its shapes are unsightly. It seems possessed only of an insatiable desire of eating; and seems to make choice only of what other animals find the most offensive. But we ought to consider that the hog with us is in an unnatural state, and that it is in a manner compelled to feed in this filthy manner, from wanting that proper nourishment which it finds in the forest. When in a state of wildness, it is of all other quadrupedes the most delicate in the choice of what vegetables it shall feed on, and rejects a greater number than any of the rest. The cow, for instance, as we are assured by Linnæus, eats two hundred and seventy-six plants, and rejects two hundred and eighteen; the goat eats four hundred and forty-nine, and rejects an hundred and twenty-six; the sheep eats three hundred and eighty-seven, and rejects an hundred and forty-one; the horse eats two hundred and sixty-two, and rejects two hundred and twelve; but the hog,

* Buffon, vol. ix. p. 14.

more

more nice in its provision than any of the former, eats but seventy two plants, and rejects an hundred and seventy-one. The indelicacy of this animal is, therefore, rather in our apprehensions than in its nature; since we find it makes a very distinguishing choice in the quality of its food; and if it does not reject animal putrefaction, it may be because it is abridged in that food which is most wholesome and agreeable to it in a state of nature. This is certain, that its palate is not insensible to the difference of eatables; for, where it finds variety, it will reject the worst, with as distinguishing a taste as any other quadrupede whatsoever*. In the orchards of peach-trees in North America, where the hog has plenty of delicious food, it is observed, that it will reject the fruit that has lain but a few hours on the ground, and continue on the watch whole hours together for a fresh windfall.

However, the hog is naturally formed in a more imperfect manner than the other animals that we have rendered domestic around us, less active in its motions, less furnished with instinct in knowing what to pursue or avoid. Without attachment, and incapable of instruction, it continues, while it lives, an useless, or rather a

* British Zoology, vol. i. p. 42.

rapacious dependant. The coarſeneſs of its hair, and the thickneſs of its hide, together with the thick coat of fat that lies immediately under the ſkin, render it inſenſible to blows, or rough uſage. Mice have been known to burrow in the back of theſe animals while fattening in the ſty*, without their ſeeming to perceive it. Their other ſenſes ſeem to be in tolerable perfection; they ſcent the hounds at a diſtance; and, as we have ſeen, they are not inſenſible in the choice of their proviſions.

The hog is, by nature, ſtupid, inactive, and drowſy; if undiſturbed, it would ſleep half its time; but it is frequently awaked by the calls of appetite, which when it has ſatisfied, it goes to reſt again. Its whole life is thus a round of ſleep and gluttony; and, if ſupplied with ſufficient food, it ſoon grows unfit even for its own exiſtence; its fleſh becomes a greater load than its legs are able to ſupport, and it continues to feed lying down, or kneeling, an helpleſs inſtance of indulged ſenſuality. The only time it ſeems to have paſſions of a more active nature, are, when it is incited by venery, or when the wind blows with any vehemence. Upon this occaſion, it is ſo agitated as to run violently towards its ſty, ſcreaming horribly at the ſame

* Buffon.

time, which seems to argue that it is naturally fond of a warm climate. It appears alſo to foreſee the approach of bad weather, bringing ſtraw to its ſty in its mouth, preparing a bed, and hiding itſelf from the impending ſtorm. Nor is it leſs agitated when it hears any of its kind in diſtreſs: when a hog is caught in a gate, as is often the caſe, or when it ſuffers any of the uſual domeſtic operations of ringing or ſpaying, all the reſt are then ſeen to gather round it, to lend their fruitleſs aſſiſtance, and to ſympathize with its ſufferings. They have often alſo been known to gather round a dog that had teazed them, and kill him upon the ſpot.

Moſt of the diſeaſes of this animal ariſe from intemperance; meaſles, impoſthumes, and ſcrophulous ſwellings, are reckoned among the number. It is thought by ſome that they wallow in the mire to deſtroy a ſort of louſe or inſect that is often found to infeſt them; however, they are generally known to live, when ſo permitted, to eighteen or twenty years; and the females produce till the age of fifteen. As they produce from ten to twenty young at a litter, and that twice a year, we may eaſily compute how numerous they would ſhortly become, if not diminiſhed by human induſtry. In the wild ſtate they are leſs prolific; and the ſow of the

woods brings forth but once a year, probably becauſe exhauſted by rearing up her former numerous progeny.

It would be ſuperfluous to dwell longer upon the nature and qualities of an animal too well known to need a deſcription: there are few, even in cities, who are unacquainted with its uſes, its appetites, and way of living. The arts of fattening, rearing, guarding, and managing hogs, fall more properly under the cognizance of the farmer than the naturaliſt; they make a branch of domeſtic œconomy, which, properly treated, may be extended to a great length: but the hiſtory of nature ought always to end where that of art begins. It will be ſufficient, therefore, to obſerve that the wild boar was formerly a native of our country, as appears from the laws of Hoel Dda*, the famous Welch legiſlator, who permitted his grand huntſman to chace that animal from the middle of November to the beginning of December. William the Conqueror alſo puniſhed ſuch as were convicted of killing the wild boar in his foreſts, with the loſs of their eyes. At preſent the whole wild breed is extinct; but no country makes greater uſe of the tame kinds, as their fleſh, which bears ſalt better

* Britiſh Zoology, vol. i. p. 44.

than that of any other animal, makes a principal part of the provisions of the British navy.

As this animal is a native of almost every country, there are some varieties found in the species. That which we call the East-India breed, is lower, less furnished with hair, is usually black, and has the belly almost touching the ground; it is now common in England, to fatten more easily than the ordinary kinds, and to make better bacon.

There is a remarkable variety of this animal about Upsal *, which is single-hoofed, like the horse; but in no other respect differing from the common kinds. The authority of Aristotle, who first made mention of this kind, has been often called in question; some have asserted, that such a quadrupede never existed, because it happened not to fall within the sphere of their own confined observation; however, at present, the animal is too well known to admit of any doubt concerning it. The hog common in Guinea differs also in some things from our own: though shaped exactly as ours, it is of a reddish colour, with long ears, which end in a sharp point, and a tail which hangs down to the pastern; the whole body is covered with short red shining hair, without any bristles, but pretty

* Amænit. Acad. vol. v. p. 465.

long near the tail. Their flesh is said to be excellent, and they are very tame.

All these, from their near resemblance to the hog, may be considered as of the same species; the East-Indian hog, we well know, breeds with the common kind; whether the same obtains between it, and those of Upsal and Guinea, we cannot directly affirm; but where the external similitude is so strong, we may be induced to believe, that the appetites and habits are the same. It is true, we are told, that the Guinea breed will not mix with ours, but keep separate, and herd only together: however, this is no proof of their diversity, since every animal will prefer its own likeness in its mate; and they will only then mix with another sort, when deprived of the society of their own. These, therefore, we may consider as all of the hog kind; but there are other quadrupedes, that, in general, resemble this species, which, nevertheless, are very distinct from them. Travellers, indeed, from their general form, or from their habits and way of living, have been content to call these creatures hogs also; but upon a closer inspection, their differences are found to be such as entirely to separate the kinds, and make each a distinct animal by itself.

THE PECCARY, OR TAJACU.

THAT animal which of all others most resembles an hog, and yet is of a formation very distinct from it, is called the Peccary, or Tajacu. It is a native of America, and found there, in such numbers, that they are seen in herds of several hundreds together, grazing among the woods, and inoffensive, except when offended.

The Peccary at first view resembles a small hog; the form of its body, the shape of its head, the length of its snout, and the form of its legs, are entirely alike: however, when we come to examine it nearer, the differences begin to appear. The body is not so bulky; its legs not so long; its bristles much thicker and stronger than those of the hog, resembling rather the quills of a porcupine, than hair; instead of a tail, it has only a little fleshy protuberance, which does not even cover its posteriors; but that which is still more extraordinary, and in which it differs from all other quadrupedes whatsoever, is, that it has got upon its back a lump resembling the navel in other animals, which is found to separate a liquor of a very strong smell. The Peccary is the only creature that has those kind of glands which discharge the

muſky ſubſtance, on that part of its body. Some have them under the belly, and others under the tail: but this creature, by a conformation peculiar to itſelf, has them on its back. This lump, or navel, is ſituated on that part of the back which is over the hinder legs; it is, in general, ſo covered with long briſtles, that it cannot be ſeen, except they be drawn aſide. A ſmall ſpace then appears, that is almoſt bare, and only beſet with a few ſhort fine hairs. In the middle it riſes like a lump, and in this there is an orifice, into which one may thruſt a common gooſe quill. This hoſe or bag is not above an inch in depth; and round it, under the ſkin, are ſituated a number of ſmall glands, which diſtil a whitiſh liquor, in colour and ſubſtance reſembling that obtained from the civet animal. Perhaps it was this analogy, that led Dr. Tyſon to ſay, that it ſmelt agreeably alſo, like that perfume. But this Mr. Buffon abſolutely denies; affirming, that the ſmell is at every time, and in every proportion, ſtrong and offenſive; and to this I can add my own teſtimony, if that able naturaliſt ſhould want a voucher.

But, to be more particular in the deſcription of the other parts of this quadrupede; the colour of the body is grizly, and beſet with

bristles, thicker and ſtronger than thoſe of a common hog; though not near ſo thick as thoſe of a porcupine, they reſemble, in this reſpect, that they are variegated with black and white rings. The belly is almoſt bare; and the ſhort briſtles on the ſides gradually encreaſe in length, as they approach the ridge of the back, where ſome are five inches long. On the head alſo, between the ears, there is a large tuft of briſtles, that are chiefly black. The ears are about two inches and an half long, and ſtand upright; and the eyes reſemble thoſe of a common hog, only they are ſmaller. From the lower corner of the eye to the ſnout, is uſually ſix inches; and the ſnout itſelf is like that of an hog's, though it is but ſmall. One ſide of the lower lip is generally ſmooth, by the rubbing of the tuſk of the upper jaw. The feet and hoofs are perfectly like thoſe of a common hog; but, as was already obſerved, it has no tail. There are ſome anatomical differences in its internal ſtructure, from that of the common hog. Dr. Tyſon was led to ſuppoſe, that it had three ſtomachs; whereas the hog has but one: however, in this he was deceived, as Mr. Daubenton has plainly ſhewn, that the ſtomach is only divided by two cloſings, which gives it the appearance as if divided into three;

and there is no conformation that prevents the food in any part of it, from going or returning to any other.

The peccary may be tamed like the hog, and has pretty nearly the ſame habits and natural inclinations. It feeds upon the ſame aliments; its fleſh, though drier and leaner than that of the hog, is pretty good eating; it is improved by caſtration; and, when killed, not only the parts of generation muſt be taken inſtantly away, but alſo the navel on the back, with all the glands that contribute to its ſupply. If this operation be deferred for only half an hour, the fleſh becomes utterly unfit to be eaten.

The peccary is extremely numerous in all the parts of Southern America. They go in herds of two or three hundred together; and unite, like hogs, in each other's defence. They are particularly fierce when their young are attempted to be taken from them. They ſurround the plunderer, attack him without fear, and frequently make his life pay the forfeit of his raſhneſs. When any of the natives are purſued by an herd in this manner, they frequently climb a tree to avoid them; while the peccaries gather round the root, threaten with their tuſks, and their rough briſtles ſtanding erect, as in the

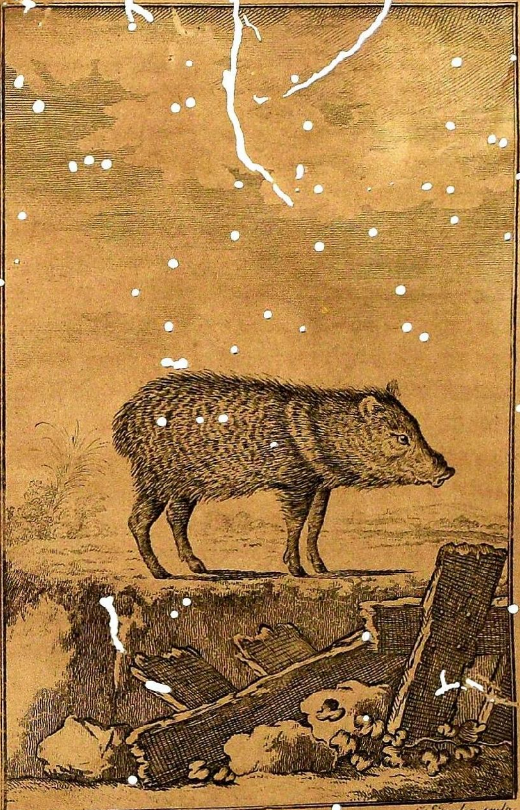
hog kind, they assume a very terrible appearance. In this manner they remain at the foot of the tree for hours together; while the hunter is obliged to wait patiently, and not without apprehensions, until they think fit to retire.

The peccary is rather fond of the mountainous parts of the country, than the lowlands; it seems to delight neither in the marshes nor the mud, like our hogs; it keeps among the woods, where it subsists upon wild fruits, roots, and vegetables; it is also an unceasing enemy to the lizard, the toad, and all the serpent kinds, with which these uncultivated forests abound. As soon as it perceives a serpent, or a viper, it at once seizes it with its fore hoofs and teeth, skins it in an instant, and devours the flesh. This is often seen, and may, therefore, be readily credited: but as to its applying to a proper vegetable immediately after, as an antidote to the poison of the animal it had devoured, this part of the relation we may very well suspect. The flesh, neither of the toad or viper, as every one now knows, are poisonous; and, therefore, there is no need of a remedy against their venom. Ray gives no credit to either part of the account; however, we can have no reason to disbelieve that it feeds upon toads and serpents; it is only the making use of a vege-

table antidote, that appears improbable, and which perhaps had its rise in the ignorance and credulity of the natives.

The peccary, like the hog, is very prolific; the young ones follow the dam, and do not ſeparate till they have come to perfection. If taken at firſt, they are very eaſily tamed, and ſoon loſe all their natural ferocity; however, they never ſhew any remarkable ſigns of docility, but continue ſtupid and rude, without attachment, or even ſeeming to know the hand that feeds them. They only continue to do no miſchief; and they may be permitted to run tame, without apprehending any dangerous conſequences. They ſeldom ſtray far from home; they return of themſelves to the ſty; and do not quarrel among each other, except when they happen to be fed in common. At ſuch times, they have an angry kind of growl, much ſtronger and harſher than that of an hog; but they are ſeldom heard to ſcream as the former, only now and then, when frighted, or irritated, they have an abrupt angry manner of blowing like the boar.

The peccary, though like the hog in ſo many various reſpects, is, nevertheleſs, a very diſtinct race, and will not mix, nor produce an intermediate breed. The European hog has been



The Peccary.

tranſplanted into America, and ſuffered to run wild among the woods; it is often ſeen to herd among a drove of peccaries, but never to breed from them. They may, therefore, be conſidered as two diſtinct creatures; the hog is the larger, and the more uſeful animal; the peccary, more feeble and local; the hog ſubſiſts in moſt parts of the world, and in almoſt every climate; the peccary is a native of the warmer regions, and cannot ſubſiſt in ours, without ſhelter and aſſiſtance. It is more than probable, however, that we could readily propagate the breed of this quadrupede; and that, in two or three generations, it might be familiarized to our climate: but as it is inferior to the hog, in every reſpect, ſo it would be needleſs to admit a new domeſtic, whoſe ſervices are better ſupplied in the old.

THE CAPIBARA, OR CABIAI.

THERE are ſome quadrupedes ſo entirely different from any that we are acquainted with, that it is hard to find a well-known animal to which to reſemble them. In this caſe, we muſt be content to place them near ſuch as they moſt approach in form and habits, ſo that the reader may at once have ſome idea of the creature's

ſhape or diſpoſition, although, perhaps, an inadequate, and a very confuſed one.

Upon that confuſed idea, however, it will be our buſineſs to work; to bring it, by degrees, to greater preciſion; to mark out the differences of form, and thus give the cleareſt notions that words can eaſily convey. The known animal is a kind of rude ſketch of the figure we want to exhibit, from which, by degrees, we faſhion out the ſhape of the creature we deſire ſhould be known; as a ſtatuary ſeldom begins his work, till the rude outline of the figure is given by ſome other hand.—In this manner, I have placed the Capibara among the hog kind, merely becauſe it is more like an hog than any other animal commonly known; and yet, more cloſely examined, it will be found to differ in ſome of the moſt obvious particulars.

The Capibara reſembles an hog of about two years old, in the ſhape of its body, and the coarſeneſs and colour of its hair. Like the hog, it has a thick ſhort neck, and a rounded briſtly back; like the hog, it is fond of the water and marſhy places, brings forth many at a time, and, like it, feeds upon animal and vegetable food. But, when examined more nearly, the differences are many and obvious. The head is longer, the eyes are larger, and the

ſnout, inſtead of being rounded, as in the hog, is ſplit, like that of a rabbit or hare, and furniſhed with thick ſtrong whiſkers; the mouth is not ſo wide, the number and the form of the teeth are different, for it is without tuſks: like the peccary, it wants a tail; and, unlike to all others of this kind, inſtead of a cloven hoof, it is in a manner web footed, and thus entirely fitted for ſwimming and living in the water. The hoofs before are divided into four parts; and thoſe behind, into three; between the diviſions, there is a prolongation of the ſkin, ſo that the foot, when ſpread in ſwimming, can beat a greater ſurface of water.

As its feet are thus made for the water, ſo it is ſeen to delight entirely in that element; and ſome naturaliſts have called it the Water-hog for that reaſon. It is a native of South America, and is chiefly ſeen frequenting the borders of lakes and rivers, like the otter. It ſeizes the fiſh upon which it preys, with its hoofs and teeth, and carries them to the edge of the lake, to devour them at its eaſe. It lives alſo upon fruits, corn, and ſugar-canes. As its legs are long and broad, it is often ſeen ſitting up, like a dog that is taught to beg. Its cry more nearly reſembles the braying of an aſs, than the grunting of an hog. It ſeldom goes out, ex-

cept at night, and that always in company. It never ventures far from the ſides of the river or the lake in which it preys: for as it runs ill, becauſe of the length of its feet, and the ſhortneſs of its legs, ſo its only place of ſafety is the water, into which it immediately plunges when purſued, and keeps ſo long at the bottom, that the hunter can have no hopes of taking it there. The Capibara, even in a ſtate of wildneſs, is of a gentle nature, and, when taken young, is eaſily tamed. It comes and goes at command, and even ſhews an attachment to its keeper. Its fleſh is ſaid to be fat and tender, but, from the nature of its food, it has a fiſhy taſte, like that of all thoſe which are bred in the water. Its head, however, is ſaid to be excellent; and, in this, it reſembles the beaver, whoſe fore parts taſte like fleſh, and the hinder like the fiſh it feeds on.

THE BABYROUESSA, OR INDIAN HOG.

THE Babyroueſſa is ſtill more remote from the hog kind than the capibara; and yet moſt travellers who have deſcribed this animal, do not ſcruple to call it the Hog of Borneo, which is an iſland in the Eaſt Indies, where it is principally to be found. Probably the animal's figure upon the whole moſt reſembles that of the

E. Marin sc.

The Babirouessa.

De Seve del. Js. Taylor sculp.

The Cabiai.

the hog kind, and may have induced them to rank it among the number: however, when they come to this deſcription, they repreſent it as having neither the hair, the briſtles, the head, the ſtature, nor the tail of a hog. Its legs, we are told, are longer, its ſnout ſhorter, its body more ſlender, and ſomewhat reſembling that of a ſtag; its hair is finer, of a grey colour, rather reſembling wool than briſtles, and its tail alſo tufted with the ſame. From theſe varieties, therefore, it can ſcarcely be called a hog; and yet, in this claſs we muſt be content to rank it until its form and nature come to be better known. What we at preſent principally diſtinguiſh it by, are four enormous tuſks, that grow out of each jaw; the two largeſt from the upper, and the two ſmalleſt from the under. The jaw-bones of this extraordinary animal are found to be very thick and ſtrong; from whence theſe monſtrous tuſks are ſeen to proceed, that diſtinguiſh it from all other quadrupedes whatſoever. The two that go from the lower jaw are not above a foot long, but thoſe of the upper are above half a yard: as in the boar, they bend circularly, and the two lower ſtand in the jaw as they are ſeen to do in that animal; but the two upper riſe from the upper jaw, rather like horns than teeth; and, bending up-

wards and backwards, sometimes have their points directed to the animal's eyes, and are often fatal by growing into them. Were it not that the Babyrouessa has two such large teeth underneath, we might easily suppose the two upper to be horns; and, in fact, their sockets are directed upwards; for which reason Doctor Grew was of that opinion. But, as the teeth of both jaws are of the same consistence, and as they both grow out of sockets in the same manner, the analogy between both is too strong not to suppose them of the same nature. The upper teeth, when they leave the socket, immediately pierce the upper lips of the animal, and grow as if they immediately went from its cheek. The tusks in both jaws are of a very fine ivory, smoother and whiter than that of the elephant, but not so hard or serviceable.

These enormous tusks give this animal a very formidable appearance; and yet it is thought to be much less dangerous than the wild boar*. Like animals of the hog kind, they go together in a body, and are often seen in company with the wild boar, with which, however, they are never known to engender. They have a very strong scent, which discovers them to the hounds; and, when pursued, they growl dread-

* Buffon, vol. xxv. p. 179.

fully, often turning back upon the dogs, and wounding them with the tusks of the lower jaw, for those of the upper are rather an obstruction than a defence. They run much swifter than the boar, and have a more exquisite scent, winding the men and the dogs at a great distance. When hunted closely, they generally plunge themselves into the sea, where they swim with great swiftness and facility, diving, and rising again at pleasure; and in this manner they most frequently escape their pursuers. Although fierce and terrible when offended, yet they are peaceable and harmless when unmolested. They are easily tamed, and their flesh is good to be eaten; but it is said to putrefy in a very short time. They have a way of reposing themselves different from most other animals of the larger kind; which is by hitching one of their upper tusks on the branch of a tree, and then suffering their whole body to swing down at ease. Thus suspended from a tooth, they continue the whole night quite secure, and out of the reach of such animals as hunt them for prey.

The Babyrouessa, though by its teeth and tusks it seems fitted for a state of hostility, and probably is carnivorous, yet, nevertheless, seems chiefly to live upon vegetables and the leaves of trees. It seldom seeks to break into

gardens, like the boar, in order to pillage the more ſucculent productions of human induſtry, but lives remote from mankind, content with coarſer fare and ſecurity. It has been ſaid that it was only to be found in the iſland of Borneo; but this is a miſtake, as it is well known in many other parts, both of Aſia and Africa, as at the Celebes, at Eſtrila, Senegal, and Madagaſcar *.

Such are the animals of the hog kind, which are not diſtinctly known; and even all theſe, as we ſee, have been but imperfectly examined, or deſcribed. There are ſome others of which we have ſtill more imperfect notices; ſuch as the Warree, an hog of the iſthmus of Darien, deſcribed by Wafer, with large tuſks, ſmall ears, and briſtles like a coarſe fur all over the body. This, however, may be the European hog, which has run wild in that part of the new world, as no other traveller has taken notice of the ſame. The Canary boar ſeems different from other animals of this kind, by the largeneſs of its tuſks; and, as is judged from the ſkeleton, by the aperture of its noſtrils, and the number of its grinders. I cannot conclude this account of thoſe animals that are thus furniſhed with enormous tuſks, without

* Anderſon's Natural Hiſtory of Greenland.

observing that there is a strong consent between these and the parts of generation. When castrated, it is well known that the tusks grow much smaller, and are scarce seen to appear without the lips; but what is still more remarkable, is, that in a boar, if the tusks by any accident or design be broken away, the animal abates of its fierceness and vivacity, and it produces nearly the same effect upon its constitution as if castration had actually taken place*.

* Lisle's Husbandry, vol. ii. p. 329.

C H A P. VII.

Animals of the Cat Kind.

WE have hitherto been describing a claſs of peaceful and harmleſs animals, that ſerve as the inſtruments of man's happineſs, or at leaſt that do not openly oppoſe him. We come now to a bloody and unrelenting tribe, that diſdain to own his power, and carry on unceaſing hoſtilities againſt him. All the claſs of the cat kind are chiefly diſtinguiſhed by their ſharp and formidable claws, which they can hide and extend at pleaſure. They lead a ſolitary ravenous life, neither uniting for their mutual defence, like vegetable feeders, nor for their mutual ſupport, like thoſe of the dog kind. The whole of this cruel and ferocious tribe ſeek their food alone; and, except at certain ſeaſons, are even enemies to each other. The dog, the wolf, and the bear, are ſometimes known to live upon vegetable or farinaceous food; but all of the cat kind, ſuch as the lion, the tiger, the leopard, and the ounce, devour nothing but fleſh, and ſtarve upon any other proviſion.

They are, in general, fierce, rapacious, ſubtle, and cruel, unfit for ſociety among each other, and incapable of adding to human hap-

pineſs. However, it is probable that even the fierceſt could be rendered domeſtic, if man thought the conqueſt worth the trouble. Lions have been yoked to the chariots of conquerors, and tigers have been taught to tend thoſe herds which they are known at preſent to deſtroy; but theſe ſervices are not ſufficient to recompenſe for the trouble of their keeping; ſo that ceaſing to be uſeful, they continue to be noxious, and become rebellious ſubjects becauſe not taken under equal protection with the reſt of the brute creation.

Other tribes of animals are claſſed with difficulty; have often but few points of reſemblance; and, though alike in form, have different diſpoſitions, and different appetites. But all thoſe of the cat kind, although differing in ſize, or in colour, are yet nearly allied to each other; being equally fierce, rapacious, and artful; and he that has ſeen one has ſeen all. In other creatures there are many changes wrought by human aſſiduity; the dog, the hog, or the ſheep, are altered in their natures and forms, juſt as the neceſſities or the caprice of mankind have found fitting; but all of this kind are inflexible in their forms, and wear the print of their natural wildneſs ſtrong upon them. The dogs or cows vary in dif-

ferent countries, but lions or tigers are ſtill found the ſame; the very colour is nearly alike in all; and the ſlighteſt alterations are ſufficient to make a difference in the kinds, and to give the animal a different denomination.

The cat kind are not leſs remarkable for the ſharpneſs and ſtrength of their claws, which thruſt forth from their ſheath when they ſeize their prey, than for the ſhortneſs of their ſnout, the roundneſs of their head, and the large whiſkers which grow on the upper lip. Their teeth alſo, which amount to the number of thirty, are very formidable; but are rather calculated for tearing their prey than for chewing it; for this reaſon they feed but ſlowly; and while they eat, generally continue growling, to deter others from taking a ſhare. In the dog kind, the chief power lies in the under jaw, which is long, and furniſhed with muſcles of amazing ſtrength; but in theſe the greateſt force lies in the claws, which are extended with great eaſe, and their gripe is ſo tenacious that nothing can open it. The hinder parts in all theſe animals are much weaker than thoſe before; and they ſeem leſs made for ſtrength than agility. Nor are they endued with the ſwiftneſs of moſt other animals; but generally owe their ſubſiſtence rather to catching their prey by ſurprize than

by hunting it fairly down. They all ſeize it with a bound, at the ſame time expreſſing their fierce pleaſure with a roar; and their firſt graſp generally diſables the captive from all further reſiſtance. With all theſe qualifications for ſlaughter, they nevertheleſs ſeem timid and cowardly, and ſeldom make an attack, like thoſe of the dog kind, at a diſadvantage: on the contrary, they fly when the force againſt them is ſuperior, or even equal to their own; and the lion himſelf will not venture to make a ſecond attempt, where he has been once repulſed with ſucceſs. For this reaſon, in countries that are tolerably inhabited, the lion is ſo cowardly, that he is often ſcared away by the cries of women and children.

The cat, which is the ſmalleſt animal of this kind, is the only one that has been taken under human protection, and may be conſidered as a faithleſs friend, brought to oppoſe a ſtill more inſidious enemy *. It is, in fact, the only animal of this kind whoſe ſervices can more than recompenſe the trouble of their education, and whoſe ſtrength is not ſufficient to make its anger formidable. The lion or the tiger may eaſily be tamed, and rendered ſub-

* This deſcription is nearly tranſlated from Mr. Buffon: what is added by me, is marked with inverted commas.

ſervient to human command; but even in their humbleſt, and moſt familiar moments, they are ſtill dangerous; ſince their ſtrength is ſuch, that the ſmalleſt fit of anger or caprice may have dreadful conſequences. But the cat, though eaſily offended, and often capricious in her reſentments, is not endowed with powers ſufficient to do any great miſchief. Of all animals, when young, there is none more prettily playful than the kitten; but it ſeems to loſe this diſpoſition as it grows old, and the innate treachery of its kind is then ſeen to prevail. From being naturally rapacious, education teaches it to diſguiſe its appetites, and to watch the favourable moment of plunder; ſupple, inſinuating, and artful, it has learned the arts of concealing its intentions till it can put them into execution; when the opportunity offers, it at once ſeizes upon whatever it finds, flies off with it, and continues at a diſtance till it ſuppoſes its offence forgotten. The cat has only the appearance of attachment; and it may eaſily be perceived, by its timid approaches, and ſide-long looks, that it either dreads its maſter, or diſtruſts his kindneſs: different from the dog, whoſe careſſes are ſincere, the cat is aſſiduous rather for its own pleaſure, than to pleaſe; and often gains confidence, only to abuſe it. The form of its

body, and its temperament, correſpond with its diſpoſition; active, cleanly, delicate, and voluptuous, it loves its eaſe, and ſeeks the ſofteſt cuſhions to lie on. "Many of its habits, however, are rather the conſequences of its formation, than the reſult of any perverſeneſs in its diſpoſition; it is timid and miſtruſtful, becauſe its body is weak, and its ſkin tender; a blow hurts it infinitely more than it does a dog, whoſe hide is thick, and body muſcular; the long fur in which the cat is cloathed, entirely diſguiſes its ſhape, which, if ſeen naked, is long, feeble, and ſlender; it is not to be wondered, therefore, that it appears much more fearful of chaſtiſement than the dog, and often flies, even when no correction is intended. Being alſo the native of the warmer climates, as will be ſhewn hereafter, it chuſes the ſofteſt bed to lie on, which is always the warmeſt."

The cat goes with young fifty-ſix days, and ſeldom brings forth above five or ſix at a time. The female uſually hides the place of her retreat from the male, who is often found to devour her kittens. She feeds them for ſome weeks with her milk, and whatever ſmall animals ſhe can take by ſurprize, accuſtoming them betimes to rapine. Before they are a year old, they are fit to engender; the female

ſeeks the male with cries; nor is their copulation performed without great pain, from the narrowneſs of the paſſage in the female. They live to about the age of ten years; and, during that period, they are extremely vivacious, ſuffering to be worried a long time before they die.

The young kittens are very playful and amuſing; but their ſport ſoon turns into malice, and they, from the beginning, ſhew a diſpoſition to cruelty; they often look wiſtfully towards the cage, ſit centinels at the mouth of a mouſe-hole, and, in a ſhort time, become more expert hunters, than if they had received the inſtructions of art. Indeed, their diſpoſition is ſo incapable of conſtraint, that all inſtruction would be but thrown away. It is true, that we are told of the Greek monks of the iſle of Cyprus, teaching cats to hunt the ſerpents with which the iſland is infeſted; but this may be natural to the animal itſelf, and they might have fallen upon ſuch a purſuit without any inſtruction. Whatever animal is much weaker than themſelves, is to them an indiſcriminate object of deſtruction. Birds, young rabbits, hares, rats and mice, bats, moles, toads and frogs, are all equally purſued; though not, perhaps, equally acceptable. The mouſe ſeems to be

their favourite game; and although the cat has the ſenſe of ſmelling in but a mean degree, it, nevertheleſs, knows thoſe holes in which its prey reſides. I have ſeen one of them patiently watch an whole day until the mouſe appear[illegible] and continue quite motionleſs until it came within reach, and then ſeized it with a jump. Of all the marks by which the cat diſc[illegible] natural malignity, that of playing and [illegible] with its little captive, before killing it o[illegible] is the moſt flagrant.

The fixed inclination which they di[illegible] for this peculiar manner of purſuit, ariſes from the conformation of their eyes. The pupil in man, and in moſt other animals, is capable but of a ſmall degree of contraction and dilatation; it enlarges a little in the dark, and contracts when the light pours in upon it, in too great quantities. In the eyes of cats, however, this contraction and dilatation of the pupil, is ſo conſiderable, that the pupil, which by day-light appears narrow and ſmall, like the black of one's nail, by night expands over the whole ſurface of the eye-ball, and, as every one muſt have ſeen, their eyes ſeem on fire. By this peculiar conformation, their eyes ſee better in darkneſs than light; and the animal is thus

better adapted for spying out and surprising its prey.

Although the cat is an inhabitant of our houses, yet it cannot properly be called a dependant; although perfectly tame, yet it acknowledges no obedience; on the contrary, it does only just what it thinks fit, and no art [illegible] controul any of its inclinations. In general, [illegible] half tamed; and has its attachments [illegible] the place in which it resides, than to [illegible] bitant. If the inhabitant quits the house, [illegible] still remains; and if carried elsewhere, seems for a while bewildered with its new situation. It must take time to become acquainted with the holes and retreats in which its prey resides, with all the little labyrinths through which they often make good an escape.

The cat is particularly fearful of water, of cold, and of ill smells. It loves to keep in the sun, to get near the fire, and to rub itself against those who carry perfumes. It is excessively fond of some plants, such as valerian, marum, and cat-mint: against these it rubs, smells them at a distance, and, at last, if they be planted in a garden, wears them out.

This animal eats slowly, and with difficulty, as its teeth are rather made for tearing, than

chewing its aliments. For this reaſon, it loves the moſt tender food, particularly fiſh, which it eats as well boiled as raw. Its ſleeping is very light; and it often ſeems to ſleep, the better to deceive its prey. When the cat walks it treads very ſoftly, and without the leaſt noiſe; and as to the neceſſities of nature, it is cleanly to the laſt degree. Its fur alſo is uſually ſleek and gloſſy; and, for this reaſon, the hair is eaſily electrified, ſending forth ſhining ſparks, if rubbed in the dark.

"The wild cat breeds with the tame*; and, therefore, the latter may be conſidered only as a variety of the former: however, they differ in ſome particulars; the cat, in its ſavage ſtate, is ſomewhat larger than the houſe-cat; and its fur being longer, gives it a greater appearance than it really has; its head is bigger, and face flatter; the teeth and claws much more formidable; its muſcles very ſtrong, as being formed for rapine; the tail is of a moderate length, but very thick and flat, marked with alternate bars of black and white, the end always black; the hips, and hind part of the lower joints of the leg, are always black; the fur is very ſoft and fine: the general colour of theſe animals, in England, is a yellowiſh white, mixed with a

* Britiſh Zoology.

deep grey. Theſe colours, though they appear at firſt ſight confuſedly blended together, yet, on a cloſe inſpection, will be found to be diſpoſed like the ſtreaks on the ſkin of the tiger, pointing from the back downwards, riſing from a black liſt, that runs from the head, along the middle of the back, to the tail. This animal is found in our larger woods; and is the moſt deſtructive of the carnivorous kinds in this kingdom. It inhabits the moſt mountainous and woody parts of theſe iſlands, living moſtly in trees, and feeding only by night. It often happens that the females of the tame kind go into the woods to ſeek mates among the wild ones. It ſhould ſeem that theſe, however, are not original inhabitants of this kingdom, but were introduced firſt in a domeſtic ſtate, and afterwards became wild in the woods, by ill uſage or neglect. Certain it is, the cat was an animal much higher in eſteem among our anceſtors than it is at preſent. By the laws of Howel, the price of a kitten, before it could ſee, was to be a penny; till it caught a mouſe, two pence; and, when it commenced mouſer, four pence: it was required, beſides, that it ſhould be perfect in its ſenſes of hearing and ſeeing, be a good mouſer, have the claws whole, and be a good nurſe. If it failed in any of

theſe

these qualities, the seller was to forfeit to the buyer the third part of its value. If any one stole or killed the cat that guarded the prince's granary, he was to forfeit a milch ewe, its fleece and lamb, or as much wheat as, when poured on the cat suspended by the tail (the head touching the floor) would form an heap high enough to cover the tip of the former. From hence we discover, besides a picture of the simplicity of the times, a strong argument that cats were not naturally bred in our forests. An animal that could be so easily taken, could never have been rated so highly; and the precautions laid down to improve the breed, would have been superfluous, in a creature that multiplies to such an amazing degree.

"In our climate, we know but of one variety of the wild cat; and, from the accounts of travellers, we learn, that there are but very few differences in this quadrupede in all parts of the world. The greatest difference, indeed, between the wild and the tame cat, is rather to be found internally than in their outward form. Of all other quadrupedes, the wild cat is, perhaps, that whose intestines are proportionably the smallest and the shortest. The intestines of the sheep, for instance, unravelled out, and measured according to their length, will be

found to be above thirty times the length of its body; whereas, the wild cat's inteſtines, being meaſured out, will not be found above three times the length of its body. This is a ſurpriſing difference; but we may account for it, from the nature of the food in the two animals; the one living upon vegetables, which requires a longer, and a more tedious preparation, before they can become a part of its body; the other, living upon fleſh, which requires very little alteration, in order to be aſſimilated into the ſubſtance of the creature that feeds upon it. The one, therefore, wanted a long canal for properly digeſting and ſtraining its food; the other, but a ſhort one, as the food is already prepared to paſs the uſual ſecretions: however, a difficulty ſtill remains behind; the inteſtines of the wild cat are, by one third, ſhorter than thoſe of the tame. How can we account for this? If we ſay that the domeſtic cat, living upon more nouriſhing and more plentiful proviſion, has its inteſtines enlarged to the quantity with which it is ſupplied, we ſhall find this obſervation contradicted in the wild boar and the wolf, whoſe inteſtines are as long as thoſe of the hog or the dog, though they lead a ſavage life, and, like the wild cat, are fed by precarious ſubſiſtence. The ſhortneſs, there-

fore, of the wild cat's inteſtines, is ſtill unaccounted for; and moſt naturaliſts conſider the difficulty as inextricable. We muſt leave it, therefore, as one of thoſe difficulties which future obſervation or accident are moſt likely to diſcover."

This animal is one of thoſe few which are common to the new continent, as well as the old. When Chriſtopher Columbus firſt diſcovered that country, an hunter brought him one which he had diſcovered in the woods: it was of the ordinary ſize, the tail very long and thick. They were common alſo in Peru, although they were not rendered domeſtic. They are well known alſo in ſeveral parts of Africa, and many parts of Aſia. In ſome of theſe countries they are of a peculiar colour, and inclining to blue. In Perſia, Pietro della Valle informs us, that there is a kind of cat, particularly in the province of Chorazan, of the figure and form of the ordinary one, but infinitely more beautiful in the luſtre and colour of its ſkin. It is of a grey blue, without mixture, and as ſoft and ſhining as ſilk. The tail is very long and cover with hair ſix inches long, which the animal throws upon its back, like the ſquirrel. Theſe cats are well known in France; and have been brought over into

England, under the name of the *blue cat*, which, however, is not their colour.

Another variety of this animal is called by the *lion cat*; or, as others more properly term it, the Cat of Angora. Theſe are larger than the common cat, and even than the wild one. Their hair is much longer, and hangs about their head and neck, giving this creature the appearance of a lion. Some of theſe are white, and others of a dun colour. Theſe come from Syria and Perſia, two countries which are noted for giving a long ſoft hair to the animals which are bred in them. The ſheep, the goats, the dogs and the rabbits of Syria, are all remarkable for the fine gloſſy length and ſoftneſs of their hair; but particularly the cat, whoſe nature ſeems to be ſo inflexible, conforms to the nature of the climate and ſoil, loſes its ſavage colour, which it preſerves almoſt in every other part of the world, and aſſumes the moſt beautiful appearance. There are ſome other varieties in this animal, but rather in colour than in form; and, in general, it may be remarked, that the cat, when carried into other countries, alters but very little, ſtill preſerving its natural manners, habits, and conformation.

De Seve del. Js. Taylor sculp

The Lion.

THE LION.

THE influence of climate upon mankind is very ſmall *; he is found to ſubſiſt in all parts of the earth, as well under the frozen poles, as beneath the torrid zone: but in animals, the climate may be conſidered as congenial, and a kind of ſecond nature. They almoſt all have their particular latitudes, beyond which they are unable to ſubſiſt; either periſhing with a moderate cold, or dying for want of a frozen air, even in a temperate climate. The rein-deer is never ſeen to depart from the icy fields of the north; and, on the contrary, the lion degenerates, when taken from beneath the line. The whole earth is the native country of man; but all inferior animals, have each their own peculiar diſtricts.

Moſt terreſtrial animals are found larger, fiercer and ſtronger, in the warmer than in the cold or temperate climates. They are alſo more courageous and enterprizing; all their diſpoſitions ſeeming to partake of the ardour of their native ſoil. The lion, produced under

* This deſcription is principally taken from Mr. Buffon: ſuch parts as are added from others, I have marked with commas.

the burning ſun of Africa, is, of all others, the moſt terrible, the moſt undaunted. The wolf or the dog, inſtead of attempting to rival him, ſcarce deſerve to attend his motions, or become his providers. Such, however, of theſe animals, as are bred in a more temperate climate, or towards the tops of cold and lofty mountains, are far more gentle, or, to ſpeak more properly, far leſs dangerous than thoſe bred in the torrid vallies beneath. The lions of Mount Atlas, the tops of which are covered in eternal ſnows, have neither the ſtrength nor the ferocity of the lions of Bildulgerid or Zaara, where the plains are covered with burning ſands. It is particularly in theſe frightful deſerts, that thoſe enormous and terrible beaſts are found, that ſeem to be the ſcourge and the terror of the neighbouring kingdoms. Happily, indeed, the ſpecies is not very numerous; and it ſeems to be diminiſhing daily; for thoſe who have travelled through theſe countries, aſſure us, that there are by no means ſo many there at preſent, as were known formerly; and Mr. Shaw obſerves, that the Romans carried fifty times as many lions from Lybia, in one year, to combat in their amphitheatres, as are to be found in the whole country at this time. The ſame remark is made with regard

to Turkey, to Persia, and the Indies; where the lions are said to diminish in their numbers every day. Nor is it difficult to assign the cause of this diminution: it is obvious that it cannot be owing to the encrease of the force of other quadrupedes, since they are all inferior to the lion, and, consequently, instead of lessening the number, only tend to encrease the supplies on which they subsist; it must, therefore, be occasioned by the encrease of mankind, who is the only animal in nature capable of making head against these tyrants of the forest, and preventing their encrease. The arms even of an Hottentot or a Negroe make them more than a match for this powerful creature; and they seldom make the attack, without coming off victorious. Their usual manner is to find out his retreat, and, with spears headed with iron, to provoke him to the combat: four men are considered as sufficient for this encounter; and he against whom the lion flies, receives him upon his spear, while the others attack him behind; the lion, finding himself wounded in the rear, turns that way, and thus gives the man he first attacked an opportunity to recover. In this manner they attack him on all sides; until, at last, they entirely disable, and then dispatch him. This superiority in the numbers,

and the arts of man, they are ſufficient to conquer the lion, ſerve alſo to enervate and diſcourage him; for he is brave only in proportion to the ſucceſs of his former encounters. In the vaſt deſerts of Zaara, in the burning ſands that lie between Mauritania and Negroland, in the uninhabited countries that lie to the north of Cafraria, and, in general, in all the deſerts of Africa, where man has not fixed his habitation, the lions are found in great numbers, and preſerve their natural courage and force. Accuſtomed to meaſure their ſtrength with every animal they meet, the habit of conquering renders them intrepid and terrible. Having never experienced the dangerous arts and combinations of man, they have no apprehenſions from his power. They boldly face him, and ſeem to brave the force of his arms. Wounds rather ſerve to provoke their rage than repreſs their ardour. They are not daunted even with the oppoſition of numbers; a ſingle lion of the deſert often attacks an entire caravan; and, after an obſtinate combat, when he finds himſelf overpowered, inſtead of flying, he continues to combat, retreating, and ſtill facing the enemy till he dies. On the contrary, the lions which inhabit the peopled countries of Morocco or India, having become acquainted with human

power, and experience of man's ſuperiority, have loſt all their courage, ſo as to be ſcared away with a ſhout; and ſeldom attack any but the unreſiſting flocks or herds, which even women and children are ſufficient to protect.

This alteration in the lion's diſpoſition ſufficiently ſhews that he might eaſily be tamed, and admit of a certain degree of education. "In fact, nothing is more common than for the keepers of wild beaſts to play with this animal, to pull out his tongue, and even to chaſtiſe him without a cauſe. He ſeems to bear it all with the utmoſt compoſure; and we very rarely have inſtances of his revenging theſe unprovoked ſallies of impertinent cruelty. However, when his anger is at laſt excited, the conſequences are terrible. Labat tells us of a gentleman who kept a lion in his chamber, and employed a ſervant to attend it; who, as is uſual, mixed his blows with careſſes. This ill-judged aſſociation continued for ſome time; till one morning the gentleman was awakened by a noiſe in his room, which, at firſt, he could not tell the cauſe of; but, drawing the curtains, he perceived an horrid ſpectacle; the lion growling over the man's head, which he had ſeparated from the body, and toſſing it round the

floor. He immediately therefore flew into the next room, called to the people without, and had the animal ſecured from doing further miſchief." However, this ſingle account is not ſufficient to weigh againſt the many inſtances we every day ſee of this creature's gentleneſs and ſubmiſſion. He is often bred up with other domeſtic animals, and is ſeen to play innocently and familiarly among them; and, if it ever happens that his natural ferocity returns, it is ſeldom exerted againſt his benefactors. As his paſſions are ſtrong, and his appetites vehement, one ought not to preſume that the impreſſions of education will always prevail; ſo that it would be dangerous in ſuch circumſtances to ſuffer him to remain too long without food, or to perſiſt in irritating and abuſing him: however, numberleſs accounts aſſure us that his anger is noble, his courage magnanimous, and his diſpoſition grateful. He has been often ſeen to deſpiſe contemptible enemies, and pardon their inſults when it was in his power to puniſh them. He has been ſeen to ſpare the lives of ſuch as were thrown to be devoured by him, to live peaceably with them, to afford them a part of his ſubſiſtence, and ſometimes to want food himſelf rather than deprive them of that life which his generoſity had ſpared.

It may also be said that the lion is not cruel, ſince he is so only from neceſſity, and never kills more than he conſumes. When ſatiated, he is perfectly gentle; while the tiger, the wolf, and all the inferior kinds, ſuch as the fox, the pole-cat, and the ferret, kill without remorſe, are fierce without cauſe, and, by their indiſcriminate ſlaughter, ſeem rather to ſatisfy their malignity than their hunger.

The outward form of the lion ſeems to ſpeak his internal generoſity. His figure is ſtriking, his look confident and bold, his gait proud, and his voice terrible. His ſtature is not overgrown, like that of the elephant, or rhinoceros; nor is his ſhape clumſy, like that of the hippopotamos, or the ox. It is compact, well proportioned, and ſizeable; a perfect model of ſtrength joined with agility. It is muſcular and bold, neither charged with fat or unneceſſary fleſh. It is ſufficient but to ſee him in order to be aſſured of his ſuperior force. His large head ſurrounded with a dreadful mane; all thoſe muſcles that appear under the ſkin ſwelling with the ſlighteſt exertions; and the great breadth of his paws, with the thickneſs of his limbs, plainly evince that no other animal in the foreſt is capable of oppoſing him. He has a very broad face, that, as ſome have imagined, reſembles the human. It

is surround[illegible] with very [illegible] h[illegible] which gives it a very majestic air. The [illegible] f the head, the temples, the cheeks, the [illegible] der jaw, the neck, the breast, the shoulder, the hinder part of the legs, and the belly, are furnished with it, while all the rest of the body is covered with very short hair, of a tawny colour. "The length of the hair in many parts, and the shortness of it in others, serves a good deal to disguise this animal's real figure. The breast, for instance, appears very broad, but in reality it is as narrow and contracted in proportion as that of the generality of dogs and horses. For the same reason, the tail seems to be of an equal thickness from one end to the other, on account of the inequality of the hair with which it is encompassed; it being shorter near the insertion where the flesh and bones are large, and growing longer in proportion as its real thickness lessens towards the point, where it ends in a tuft. The hair about the neck and breast is not different from that on the rest of the body, except in the length of it; nor is each hair pointed as in most other animals, but of an equal thickness from one end to the other. The neck is very strong but not composed of one solid bone, as Aristotle has imagined; on the contrary, though very short and muscular, it has

as many bones as the camel or the horſe; for it is univerſal in all quadrupedes to have ſeven joints in the neck; and not one of them have either more or leſs. However, the muſcles in the neck of the lion, that tye the bones together, are extremely ſtrong, and have ſomewhat the appearance of bones; ſo that ancient authors, who have treated of this animal, have miſtaken the whole for a ſingle bone. The tongue is rough, and beſet with prickles as hard as a cat's claws; theſe have the grain turned backwards; ſo that it is probable a lion, if it ſhould attempt to lick a man's hand, as we are told it ſometimes does, would tear off the ſkin. The eyes are always bright and fiery; nor even in death does this terrible look forſake them. In ſhort, the ſtructure of the paws, teeth, eyes, and tongue, are the ſame as in a cat; and alſo in the inward parts theſe two animals ſo nearly reſemble each other, that the anatomiſt's chief diſtinction ariſes merely from the ſize."

The lion has, as was obſerved before, a large mane, which grows every year longer as the animal grows older: the lioneſs is without this ornament at every age. This mane is not coarſe or rough as in an horſe, but compoſed of the ſame hair with the reſt of the body, lengthened

and ſhining. The m[illegible] e[illegible]s the reſt of the body, is of a yell[illegible]w c[illegible] nor is there ever any difference to be fo[illegible]d in the colour of one lion from that of anoth[illegible] What the ancient[illegible] might have ſ[illegible]id concerning black lions, or white, or ſtreak[illegible]d like the tiger, is not confirmed by modern experience; ſo that theſe varieties have never been ſeen, or exiſt no longer.

It is uſually ſuppoſed that the lion is not poſſeſſed of the ſenſe of ſmelling in ſuch perfection as moſt other animals. It is alſo obſerved, that too ſtrong a light greatly incommodes him. This is more than probable from the formation of his eyes, which, like thoſe of the cat, ſeem fitted for ſeeing beſt in the dark. For this reaſon, he ſeldom appears in open day, but ravages chiefly by night; and not only the lion, but all other animals of the cat kind, are kept off by the fires which the inhabitants light to preſerve their herds and flocks; the brightneſs of the flame dazzles their eyes, which are only fitted for ſeeing in the dark; and they are afraid to venture blindly into thoſe places which they know to be filled with their enemies. "It is equally true of all this kind, that they hu[illegible]ner by the ſight than the ſmell; and it ſomet[illegible] happens that the lion purſues either

the jackall [illegible] dog, while they are hunting upon [illegible]; and, when they have run the beast [illegible], he comes in, and monopolizes the spoil. From hence, probably, may have arisen the story of the lion's provider: these little industrious animals may often, it is true, provide a feast for the lion; but they have hunted merely for themselves, and he is an unwelcome intruder upon the fruits of their toil."

The lion, when hungry, boldly attacks all animals that come in his way; but, as he is very formidable, and as they all seek to avoid him, he is often obliged to hide, in order to take them by surprize. For this purpose he crouches on his belly, in some thicket, or among the long grass, which is found in many parts of the forest; in this retreat he continues, with patient expectation, until his prey comes within a proper distance, and he then springs after it, fifteen or twenty feet from him, and often seizes it at the first bound. If he misses the effort, and in two or three reiterated springs cannot seize his prey, he continues motionless for a time, seems to be very sensible of his disappointment, and waits for a more successful opportunity. In the deserts and forests, his most usual prey are the gazelles and the

monkeys, with which th[illegible] [illegible]ions abound. The latter he takes when the[illegible] happen to be upon the ground, for he cann[illegible] climb trees like the cat or the tiger. He devours a great deal at a time, and generally fills himfeif for two or three days to come. His teeth are fo ftrong that he very eafily breaks the bones, and fwallows them with the reft of the body. It is reported that he fuftains hunger a very long time, but thirft he cannot fupport in an equal degree, his temperament being extremely hot; fome have even afferted that he is in a continual fever. He drinks as often as he meets with water, lapping it like a cat; which, as we know, drinks but flowly. He generally requires about fifteen pound of raw flefh in a day; he prefers that of live animals, and particularly thofe which he has juft killed. He feldom devours the bodies of animals when they begin to putrify; and he chufes rather to hunt for a frefh fpoil, than to return to that which he had half devoured before. However, though he ufually feeds upon frefh provifion, his breath is very offenfive, and his urine infupportable.

The roaring of the lion is fo loud, that when it is [illegible]d in the night, and re-echoed by the mountains, it refembles diftant thunder. This

roar

roar is his natural note; for when enraged he has a different growl, which is ſhort, broken, and reiterated. The roar is a deep hollow growl, which he ſends forth five or ſix times a day, particularly before rains. The cry of anger is much louder, and more formidable. This is always excited by oppoſition; and upon thoſe occaſions, when the lion ſummons up all his terrors for the combat, nothing can be more terrible. He then laſhes his ſides with his long tail, which alone is ſtrong enough to lay a man level. He moves his mane in every direction; it ſeems to riſe and ſtand like briſtles round his head; the ſkin and muſcles of his face are all in agitation; his huge eye-brows half cover his glaring eye-balls; he diſcovers his teeth, which are formed rather for deſtruction than chewing his food; he ſhews his tongue covered with points, and extends his claws, which appear almoſt as long as a man's fingers. Prepared in this manner for war, there are few animals that will venture to engage him; and even the boldeſt of the human kind are daunted at his approach. The elephant, the rhinoceros, the tiger, and the hippopotamos, are the only animals that are not afraid ſingly to make oppoſition.

"Nevertheless, neither the leopard nor the wild boar, if provoked, will shun the combat; they do not seek the lion to attack, but will not fly at his approach; they wait his onset, which he seldom makes, unless compelled by hunger; they then exert all their strength, and are sometimes successful. We are told of the combat of a lion and a wild boar, in a meadow near Algiers, which continued for a long time with incredible obstinacy. At last, both were seen to fall by the wounds they had given each other; and the ground all about them was covered with their blood. These instances, however, are very rare, for the lion is in general the undisputed master of the forest. Man is the only creature that attacks him with almost certain success; with the assistance of dogs and horses, which are trained to the pursuit. These animals that, in a state of nature, would have fled from the presence of the lion, in an agony of consternation, when conscious of the assistance of man, become pursuers in turn, and boldly hunt their natural tyrant. The dogs are always of the large breed; and the horses themselves, as Gesner assures us, must be of that sort called Charossi, or lion-eyed, all others of this kind flying at the sight of the lion, and

endeavouring to throw their riders. When the lion is rouzed, he recedes with a ſlow proud motion; he never goes off directly forward, nor meaſures his paces equally, but takes an oblique courſe, going from one ſide to the other, and bounding rather than running. When the hunters approach him, they either ſhoot or throw their javelins; and in this manner diſable him before he is attacked by the dogs, many of whom he would otherwiſe deſtroy. He is very vivacious, and is never killed at once, but continues to fight deſperately, even after he has received his mortal blow. He is alſo taken by pit-falls; the natives digging a deep hole in the ground, and covering it ſlightly over with ſticks and earth; which, however, give way beneath his weight, and he ſinks to the bottom, from whence he has no means of eſcape. But the moſt uſual manner of taking this animal is while a cub, and incapable of reſiſtance. The place near the den of the lioneſs is generally well known by the greatneſs of her depredations on that occaſion; the natives, therefore, watch the time of her abſence, and, aided by a ſwift horſe, carry off her cubs; which they ſell to ſtrangers, or to the great men of their country."

The lion, while young and active, lives by hunting in the foreſt, at the greateſt diſtance from any human habitation; and ſeldom quits this retreat while able to ſubſiſt by his natural induſtry; but when he becomes old, and unfit for the purpoſes of ſurprize, he boldly comes down into places more frequented, attacks the flocks and herds that take ſhelter near the habitation of the ſhepherd or the huſbandman, and depends rather upon his courage than his addreſs for ſupport. It is remarkable, however, that when he makes one of theſe deſperate ſallies, if he finds men and quadrupedes in the ſame field, he only attacks the latter, and never meddles with men, unleſs they provoke him to engage. It is obſerved that he prefers the fleſh of camels to any other food; he is likewiſe ſaid to be fond of that of young elephants; theſe he often attacks before their trunk is yet grown; and, unleſs the old elephant comes to their aſſiſtance, he makes them an eaſy prey.

The lion is terrible upon all occaſions, but particularly at thoſe ſeaſons when he is incited by deſire, or when the female has brought forth. It is then that the lioneſs is ſeen followed by eight or ten males, who fight moſt bloody battles among each other, till one of them be-

comes victorious over all the reſt. She is ſaid to bring forth in ſpring, and to produce but once a year. With reſpect to the time of geſtation, naturaliſts have been divided, ſome aſſerting that the lioneſs went with young ſix months, and others but two. The time alſo of their growth and their age have hitherto been left in obſcurity; ſome aſſerting that they acquired their full growth in three years, and others that they required a longer period to come to perfection; ſome ſaying (and among this number is Mr. Buffon) that they lived to but twenty, or twenty-two years at moſt; others making their lives even of ſhorter duration. All theſe doubts are now reduced to certainty; for we have had ſeveral of theſe animals bred in the Tower; ſo that the manner of their copulation, the time of their geſtation, the number they bring forth, and the time they take to come to perfection, are all pretty well known. Although the lion emits his urine backwards, yet he couples in the ordinary manner; and, as was ſaid before, his internal ſtructure in almoſt every reſpect reſembles that of a cat. The lioneſs, however, is upon theſe occaſions particularly fierce, and often wounds the lion in a terrible manner. She goes with young,

as I am aſſured by her keeper, no more than five months; the young ones, which are never more than two in number when brought forth, are about the ſize of a large pug dog, harmleſs, pretty, and playful; they continue the teat for twelve months, and the animal is more than five years in coming to perfection. As to its age, from its impriſoned ſtate, we can have no certainty; ſince it is very probable that, being deprived of its natural climate, food, and exerciſe, its life muſt be very much abridged. However, naturaliſts have hitherto been greatly miſtaken as to the length of its exiſtence. The great he lion, called Pompey, which died in the year 1760, was known to have been in the Tower for above ſeventy years; and one lately died there, which was brought from the river Gambia, that died above ſixty-three. The lion, therefore, is a very long-lived animal; and, very probably, in his native foreſts, his age exceeds even that of man himſelf."

In this animal, all the paſſions, even of the moſt gentle kind, are in exceſs, but particularly the attachment of the female to her young. The lioneſs, though naturally leſs ſtrong, leſs courageous, and leſs miſchievous than the lion, becomes terrible when ſhe has got young ones

to provide for. She then makes her incurſions with even more intrepidity than the lion himſelf; ſhe throws herſelf indiſcriminately among men and other animals; deſtroys without diſtinction; loads herſelf with the ſpoil, and brings it home reaking to her cubs; whom ſhe accuſtoms betimes to cruelty and ſlaughter. She uſually brings forth in the moſt retired and inacceſſible places; and when ſhe fears to have her retreat diſcovered, often hides her tracks, by running back her ground, or by bruſhing them out with her tail. She ſometimes alſo, when her apprehenſions are great, tranſports them from one place to another; and, if obſtructed, defends them with determined courage, and fights to the laſt.

The lion is chiefly an inhabitant of the torrid zone; and, as was ſaid, is always moſt formidable there: nevertheleſs, he can ſubſiſt in more temperate climates; and there was a time when even the ſouthern parts of Europe were infeſted by him. At preſent, he is only found in Africa and the Eaſt-Indies; in ſome of which countries he grows to an enormous height. The lion of Bildulgerid is ſaid to be nearly five feet high, and between nine and ten feet from the tip of the noſe to the inſertion of the tail.

We have in the Tower, at present, one of above four feet high, that was brought from Morocco, which is the largeſt that for ſome time paſt has been ſeen in Europe. The ordinary ſize is between three and four feet; the female being in all her dimenſions about one third leſs than the male. There are no lions in America; the Puma, which has received the name of the American Lion, is, when compared, a very contemptible animal, having neither the ſhape, the ſize, nor the mane of the lion; being known to be extremely cowardly, to climb trees for its prey, to ſubſiſt rather by its cunning than its courage, and to be inferior even to the animal that goes by the name of the American Tiger. We ought not, therefore, to confound this little treacherous creature with the lion, which all the ancients have concurred in denominating the king of beaſts, and which they have deſcribed as brave and merciful. "Indeed, the numerous accounts which they have given us of this animal's generoſity and tenderneſs, ſhew that there muſt be ſome foundation for the general belief of its good qualities; for mankind ſeldom err when they are all found to unite in the ſame ſtory. However, perhaps, the caution of Ariſtophanes, the comic poet,

De Seve del. Js. Taylor sculp.

The Lioness.

is better followed in practice, who advises us to have nothing to do with this creature, but to let the lioness suckle her own whelps *."

THE TIGER.

" THE ancients had a saying, *That as the peacock is the most beautiful among birds, so is the tiger among quadrupedes* †. In fact, no quadrupede can be more beautiful than this animal; the glossy smoothness of his hair, which lies much smoother, and shines with greater brightness, than even that of the leopard; the extreme blackness of the streaks with which he is marked, and the bright yellow colour of the ground which they diversify, at once strike the beholder. To this beauty of colouring is added an extremely elegant form, much larger indeed than that of the leopard, but more slender, more delicate, and bespeaking the most extreme swiftness and agility. Unhappily, however, this animal's disposition is as mischievous as its form is admirable, as if Providence was willing to shew the small value of beauty, by bestowing it on the most noxious of quadru-

* Tantem autem præstat pulchritudine tygris inter alias færas quantum inter volucres pavo.

† Ου χ,η λεοντος σκυμνον εν πολει τρεφειν.

pedes. We have, at present, one of these animals in the Tower, which to the view appears the most good-natured and harmless creature in the world; its physiognomy is far from fierce or angry; it has not the commanding stern countenance of the lion, but a gentle placid air; yet for all this it is fierce and savage beyond measure; neither correction can terrify it, nor indulgence can tame."

The chief and most observable distinction in the tiger, and in which it differs from all others of the mottled kind, is in the shape of its colours, which run in streaks or bands in the same direction as his ribs, from the back down to the belly. The leopard, the panther, and the ounce, are all partly covered like this animal, but with this difference, that their colours are broken in spots all over the body; whereas in the tiger they stretch lengthwise, and there is scarce a round spot to be found on his skin. Besides this, there are other observable distinctions: the tiger is much larger, and often found bigger even than the lion himself: it is much slenderer also in proportion to its size; its legs shorter, and its neck and body longer. In short, of all other animals, it most resembles the cat in shape; and, if we conceive the latter

magnified to a very great degree, we ſhall have a tolerable idea of the former.

In claſſing carnivorous animals, we may place the lion foremoſt *; and immediately after him follows the tiger, which ſeems to partake of all the noxious qualities of the lion, without ſharing any of his good ones. To pride, courage, and ſtrength, the lion joins greatneſs, clemency, and generoſity; but the tiger is fierce without provocation, and cruel without neceſſity. The lion ſeldom ravages except when excited by hunger; the tiger, on the contrary, though glutted with ſlaughter, is not ſatisfied, ſtill continues the carnage, and ſeems to have its courage only inflamed by not finding reſiſtance. In falling in among a flock or an herd, it gives no quarter, but levels all with indiſcriminate cruelty, and ſcarce finds time to appeaſe its appetite, while intent upon ſatisfying the malignity of its nature. It thus becomes the ſcourge of the country where it is found; it fears neither the threats nor the oppoſition of mankind; the beaſts both wild and tame fall equally a ſacrifice to its inſatiable fury; the young elephant and the rhinoceros become

* The remainder of this deſcription is taken from Mr. Buffon, except where marked with commas.

equally its prey, and it not unfrequently ventures to attack the lion himſelf.

Happily for the reſt of nature, that this animal is not common, and that the ſpecies is chiefly confined to the warmeſt provinces of the Eaſt. The tiger is found in Malabar, in Siam, in Bengal, and in all the countries which are inhabited by the elephant or the rhinoceros. Some even pretend that it has a friendſhip for, and often accompanies the latter, in order to devour its excrements, which ſerve it as a purge. Be this as it will, there is no doubt but that they are often ſeen together at the ſides of lakes and rivers; where they are probably both compelled to go by the thirſt which in that torrid climate they muſt very often endure. It is likely enough, alſo, that they ſeldom make war upon each other, the rhinoceros being a peaceable animal, and the tiger knowing its ſtrength too well to venture the engagement. It is ſtill more likely that the tiger finds this a very convenient ſituation, ſince it can there ſurprize a greater number of animals, which are compelled thither from the ſame motives. In fact, it is generally known to lurk near ſuch places where it has an opportunity of chuſing its prey, or rather of multiplying its maſſacres. When it has

killed one it often goes to deſtroy others, ſwallowing their blood at large draughts, and ſeeming rather glutted than ſatiated with its abundance.

However, when it has killed a large animal, ſuch as a horſe, or a buffalo, it immediately begins to devour it on the ſpot, fearing to be diſturbed. In order to feaſt at its eaſe, it carries off its prey to the foreſt, dragging it along with ſuch eaſe, that the ſwiftneſs of its motion ſeems ſcarce retarded by the enormous load it ſuſtains. From this alone we may judge of its ſtrength; but, to have a more juſt idea of this particular, let us ſtop a moment to conſider the dimenſions of this moſt formidable creature. Some travellers have compared it for ſize to an horſe, and others to a buffalo, while others have contented themſelves with ſaying that it was much larger than a lion. We have recent accounts of this animal's magnitude that deſerve the utmoſt confidence. Mr. Buffon has been aſſured by one of his friends that he ſaw a tiger, in the Eaſt Indies, of fifteen feet long. "Suppoſing that he means including the tail, this animal, allowing four feet for that, muſt have been eleven feet from the tip of the noſe to the inſertion of the tail. Indeed, that which is now in the Tower is not ſo large, being, as

well as I could meaſure, ſix feet from the tip to the inſertion, and the tail was three feet more. Like all the reſt of its kind, its motions are irregular and deſultory; it bounds rather than runs; and like them rather chuſes to take its prey by ſurprize than to be at the trouble of hunting it down." How large a leap it can take at once we may eaſily judge, by comparing what it might do to what we ſee ſo ſmall an animal as the cat actually perform. The cat can leap ſeveral feet at a bound; and the tiger, who is ten times as long, can no doubt ſpring proportionably.

"The tiger is the only animal whoſe ſpirit ſeems untameable. Neither force nor conſtraint, neither violence nor flattery, can prevail in the leaſt on its ſtubborn nature. The careſſes of the keeper have no influence on their heart of iron; and time, inſtead of mollifying its diſpoſition, only ſerves to encreaſe its fierceneſs and malignity. The tiger ſnaps at the hand that feeds it as well as that by which it is chaſtiſed; every object ſeems conſidered only as its proper prey, which it devours with a look; and, although confined by bars and chains, ſtill makes fruitleſs efforts, as if to ſhew its malignity when incapable of exerting its force."

To give a ſtill more complete idea of the ſtrength of this terrible creature, we ſhall quote a paſſage from Father Tachard, who was an eye-witneſs of a combat between a tiger and two elephants at Siam. For this purpoſe, the king ordered a lofty paliſade to be built of bambou cane, about an hundred feet ſquare; and in the midſt of this were three elephants appointed for combating the tiger. Their heads and a part of their trunk was covered with a kind of armour, like a maſk, which defended that part from the aſſaults of the fierce animal with which they were to engage. As ſoon, ſays this author, as we were arrived at the place, a tiger was brought forth from its den, of a ſize much larger than we had ever ſeen before. It was not at firſt let looſe, but held with cords, ſo that one of the elephants approaching, gave it three or four terrible blows, with its trunk, on the back, with ſuch force, that the tiger was for ſome time ſtunned, and lay without motion, as if it had been dead. However, as ſoon as it was let looſe, and at full liberty, although the firſt blows had greatly abated its fury, it made at the elephant with a loud ſhriek, and aimed at ſeizing his trunk. But the elephant, wrinkling it up with great dexterity, received the tiger on his great teeth, and toſſed it up into the air.

This ſo diſcouraged the furious animal, that it no more ventured to approach the elephant, but made ſeveral circuits round the paliſade, often attempting to fly at the ſpectators. Shortly after, three elephants were ſent againſt it, and they continued to ſtrike it ſo terribly with their trunks, that it once more lay for dead; and they would certainly have killed it, had not there been a ſtop put to the combat.

From this account, we may readily judge of the ſtrength of this animal, which, though reduced to captivity, and held by cords, though firſt diſabled, and ſet alone againſt three, yet ventured to continue the engagement, and even that againſt animals covered and protected from its fury.

"Captain Hamilton informs us, that in the Sundah Raijha's dominions there are three ſorts of tigers in the woods, and that the ſmalleſt are the fierceſt. This is not above two feet high, appears to be extremely cunning, and delights in human fleſh. The ſecond kind is about three feet high, and hunts deer and wild hogs, beſides the little animal which has been already deſcribed, under the name of the Chevrotain, or Guinea deer. The tiger of the largeſt ſort is above three feet and an half high; but, although endued with greater powers, is, by no means,

means, so rapacious as either of the former. This formidable animal, which is called the Royal Tiger (one of which we have at preſent in the Tower) does not ſeem ſo ravenous nor ſo dangerous, and is even more cowardly. A peaſant in that country, as this traveller informs us, had a buffalo fallen into a quagmire, and, while he went for aſſiſtance, there came a larger tiger, that, with its ſingle ſtrength, drew forth the animal, which the united force of many men could not effect. When the people returned to the place, the firſt object they beheld was the tiger, who had thrown the buffalo over its ſhoulder, as a fox does a gooſe, and was carrying it away, with the feet upward, towards its den; however, as ſoon as it ſaw the men, it let fall its prey, and inſtantly fled to the woods: but it had previouſly killed the buffalo, and ſucked its blood; and, no doubt, the people were very well ſatisfied with its retreat. It may be obſerved, that ſome Eaſt-Indian buffaloes weigh above a thouſand pounds, which is twice as heavy as the ordinary run of our black cattle; ſo that from hence we may form a conception of the enormous ſtrength of this rapacious animal, that could thus run off with a weight at leaſt twice as great as that of itſelf.

"Were this animal as common as the panther, or even as the lion himſelf, thus furniſhed as it is with the power to deſtroy, and the appetite for ſlaughter, the country would be uninhabitable where it reſides. But luckily, the ſpecies is extremely ſcarce; and has been ſo ſince the earlieſt accounts we have had of the tiger. About the times of Auguſtus, we are aſſured by Pliny*, that when panthers were brought to Rome by hundreds, a ſingle tiger was conſidered as an extraordinary ſight; and he tells us, that the emperor Claudius was able to procure four only; which ſhews how difficultly they were procured. The incredible fierceneſs of this animal may be, in ſome meaſure, the cauſe of the ſcarcity which was then at Rome, ſince it was the opinion of Varo, that the tiger was never taken alive †: but its being a native only of the Eaſt-Indies, and that particularly of the warm regions, it is not to be wondered that the ſpecies ſhould be ſo few."

We may therefore conſider the ſpecies of the true ſtreaked tiger, as one of the ſcarceſt of animals, and much leſs diffuſed than that of the lion. As to the number of its young, we have

* Plin. Hiſt. Nat. lib. viii. c. 17.

† Tigris vivus capi adhuc non potuit. Var. de Ling. Lat.

no certain accounts; however, it is said, that it brings forth four or five at a time. Although furious at all times, the female, upon this occasion, exceeds her usual rapacity; and, if her young are taken from her, she pursues the spoiler with incredible rage; he, to save a part, is contented to lose a part, and drops one of her cubs, with which she immediately returns to her den, and again pursues him; he then drops another, and by the time she has returned with that, he generally escapes with the remainder. If she loses her young entirely, she then becomes desperate, boldly approaches even the towns themselves, and commits incredible slaughter. The tiger expresses its resentment in the same manner with the lion; it moves the muscles and skin of its face, shews its teeth, and shrieks in the most frightful manner. Its note is very different from that of the lion; being rather a scream than a roar: and the ancients expressed it very well, when they said that, *tigrides indomitæ rancant rugiunt que leones.*

The skin of these animals is much esteemed all over the East, particularly in China; the Mandarines cover their seats of justice in the public places with it, and convert it into coverings for cushions in winter. In Europe, these skins, though but seldom to be met with,

are of no great value, thoſe of the panther and the leopard being held in much greater eſtimation. This is all the little benefit we derive from this dreadful animal, of which ſo many falſehoods have been reported; as, that its ſweat was poiſonous, and the hair of its whiſkers more dangerous than an envenomed arrow. But the real miſchiefs which the tiger occaſions while living are ſufficient, without giving imaginary ones to the parts of its body when dead. In fact, the Indians ſometimes eat its fleſh, and find it neither diſagreeable nor unwholſome.

There is an animal of America, which is uſually called the Red Tiger, but Mr. Buffon calls it the Cougar, which, no doubt, is very different from the tiger of the Eaſt. Some, however, have thought proper to rank both together; and I will take leave to follow their example, merely becauſe the cougar is more like a tiger in every thing, except the colour, than any other animal I know, having the head, the body, and the neck, ſhaped very much in the ſame manner. Of theſe ſlight differences, words would give but a very faint idea; it will be, therefore, ſufficient to obſerve, that they are both equally ſlender, and are ſmaller where the neck joins the head, than others of the panther kind. There is one at

present in the Tower; and it seemed to me, as well as I could see it through the bars, that were it properly streaked and coloured, it would in all things resemble a small tiger. It is, however, of a very different colour, being of a deep brown, and the tail very long and pointed. It is rather darker on the back; under the chin it is a little whitish, as also on the lower part of the belly.

Of all the American animals, this is the most formidable and mischievous; even their pretended lion not excepted. It is said, there are several sorts of them; and, as well as I can remember, I have seen one or two here in England, both differing from the present, in size and conformation. It is, indeed, a vain endeavour to attempt to describe all the less obvious varieties in the cat kind. If we examine them minutely, we shall find the differences multiply upon us so much, that, instead of an history, we shall only be paid with a catalogue of distinctions. From such of them as I have seen, within these last six years, I think I could add two animals of this species, that have not been hitherto described, and with the names of which he that shewed them was utterly unacquainted. But it is a poor ambition, that of being eager to find out new distinctions, or

adding one noxious animal more, to a liſt that is already ſufficiently numerous. Were the knowing a new variety to open an unknown hiſtory, or in the leaſt to extend our knowledge, the enquiry would be then worth purſuing; but what ſignifies mentioning ſome trifling difference, and from thence becoming authors of a new name, when the difference might have originally proceeded either from climate, ſoil, or indiſcriminate copulation?

The cougars are extremely common in South America, and, where the towns border upon the foreſt, theſe make frequent incurſions by night into the midſt of the ſtreets, carrying off fowls, dogs, and other domeſtic creatures. They are, however, but weak and contemptible, compared to the great tiger, being found unable to cope with a ſingle man. The Negroes and Indians are very dextrous in encountering them; and ſome, even for the ſake of their ſkins, ſeek them in their retreats. The arms in this combat, ſeemingly ſo dangerous, are only a lance of two or three yards long, made of heavy wood, with the point hardened in the fire; and a kind of ſcymitar, of about three quarters of a yard in length. Thus armed, they wait till the tiger makes an aſſault againſt the left hand, which holds the lance, and is

wrapped up in a ſhort cloak of baize. Sometimes the animal, aware of the danger, ſeems to decline the combat; but then its antagoniſt provokes it with a ſlight touch of the lance, in order, while he is defending himſelf, to ſtrike a ſure blow. As ſoon, therefore, as the creature feels the lance, it graſps it with one of its paws, and with the other ſtrikes at the arm which holds it. Then it is that the perſon nimbly aims a blow with his ſcymitar, which he kept concealed, with the other hand, and hamſtrings the creature, which immediately draws back enraged, but inſtantly returns to the charge. But then, receiving another ſtroke, it is totally deprived of the power of motion: and the combatant, killing it at his leiſure, ſtrips the ſkin, cuts off the head, and returns to his companions, diſplaying theſe as the trophies of his victory.

This animal, as we are aſſured, is often more ſucceſsful againſt the crocodile; and it is the only quadrupede in that part of the world, that is not afraid of the engagement. It muſt be no unpleaſant ſight to obſerve, from a place of ſafety, this extraordinary combat, between animals ſo terrible and obnoxious to man. Such as have ſeen it, deſcribe it in the following manner. When the tiger, impelled by thirſt,

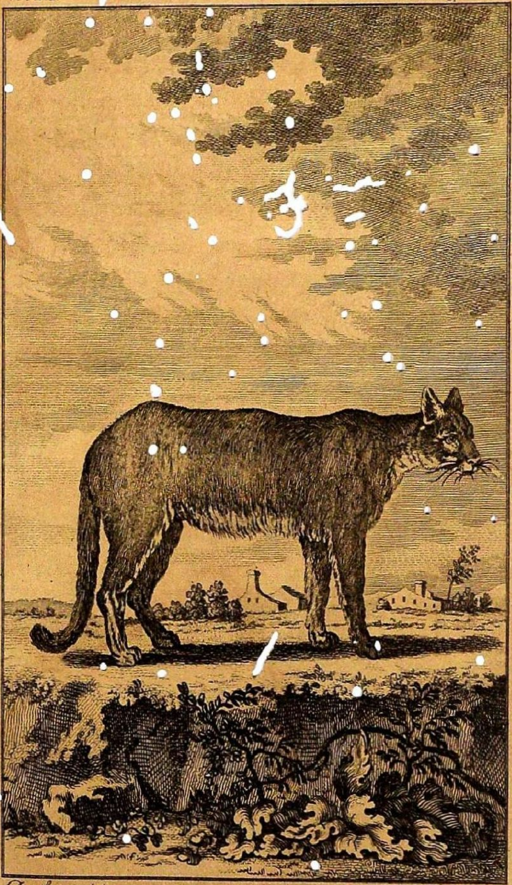
that ſeems continually to conſume it, comes down to the river ſide to drink, the crocodile, which makes no diſtinction in its prey, lifts its head above water to ſeize it; the tiger, not leſs rapacious than the other, and unacquainted with the force of the enemy, boldly ventures to ſeize it, and plunges its claws into the eyes of the crocodile, which is the only vulnerable part of its body: upon this the crocodile inſtantly dives under water, and the tiger goes down with him, for it will ſooner die than let go its hold. In this manner the combat continues for ſome time, until the tiger is drowned, or eſcapes, as is ſometimes the caſe, from its diſabled enemy.

Theſe animals are common in Guiana*. They were formerly ſeen ſwimming over, in great numbers, into the iſland of Cayenne, to attack and ravage the flocks and herds of the inhabitants. In the beginning, they were a terrible ſcourge to the infant colony; but, by degrees, they were repulſed and deſtroyed, and are now ſeen no longer at that place. They are found in Brazil, in Paraguay, in the country of the Amazons, and in ſeveral other parts of South America. They often climb trees in queſt of prey, or to avoid their purſuers. They

* Buffon, vol. xix. p. 22.

De Seve del. J. Taylor sculp.

The Tiger.



De Seve del   Js. Taylor sculp.

The Cougar.

are deterred by fire, like all other animals of the cat kind; or, more properly ſpeaking, they ſeldom venture near thoſe places where they ſee it kindled, as they are always ſure of their enemies being near, and their nocturnal eyes are dazzled by the brightneſs of the blaze. From the deſcription of this animal, one would be hardly led to ſuppoſe, that its fleſh was good for food; and yet we have ſeveral accounts which alledge the fact, ſome aſſerting it to be ſuperior even to mutton: however, what Monſieur Des Marchais obſerves, is moſt likely to be true; namely, that the moſt valuable part of this animal is its ſkin, and that its fleſh is but indifferent eating, being generally lean, and uſually having a ſtronger fumet.

THE PANTHER, AND THE LEOPARD.

WE have hitherto found no great difficulty in diſtinguiſhing one animal from another, each carrying its own peculiar marks, which, in ſome meaſure, ſerve to ſeparate it from all the reſt. But it is otherwiſe, when we come to theſe of the cat kind, that fill up the chaſm between the tiger and the cat. The ſpots with which their ſkins are diverſified, are ſo various, and their ſize ſo equivocal, that it is no eaſy matter to

diſtinguiſh the ſpecies, particularly as we have little elſe but the ſpots and the ſize to guide us in making the diſtinction. If we regard the figure and diverſity of the ſpots, we ſhall find many varieties not taken notice of by any naturaliſt; if we are [illegible] by the ſize, we ſhall find an imperceptible gradation from the cat to the tiger. It would be vain, therefore, to make as many varieties in theſe animals as we ſee differences in ſpots or ſtature; it will be ſufficient to ſeize the moſt general diſtinctions, and leave the reſt to ſuch as are fond of more minute diſquiſitions.

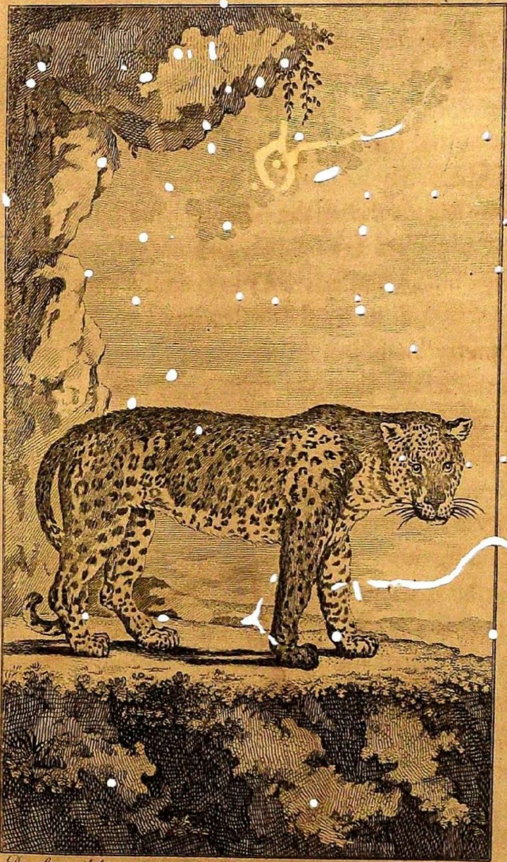
Of all this tribe, whoſe ſkins are ſo beautifully ſpotted, and whoſe natures are ſo miſchievous, the Panther may be conſidered as the foremoſt. This animal has been by many naturaliſts miſtaken for the tiger; and, in fact, it approaches next to it in ſize, fierceneſs, and beauty. It is diſtinguiſhed, however, by one obvious and leading character; that of being ſpotted, not ſtreaked; for, in this particular, the tiger differs from the panther, the leopard, and almoſt all the inferior ranks of this miſchievous family.

This animal, which Mr. Buffon calls ſimply the Panther, Linnæus the Pard, Geſner the Pardalis, and the modern Latins the Leopardus;

this animal, I ſay, which goes by too many names, and which the Engliſh have indiſcriminately called by the name of the panther or the leopard, may be conſidered as the largeſt of the kind, and is ſpotted in a manner ſomewhat different from thoſe that are ſmaller. As thoſe ſpots, however, make the principal difference between it and the leſſer animals, which it otherwiſe reſembles in ſhape, ſize, diſpoſition, and beauty, I will firſt ſhew theſe ſlight diſtinctions, and mention the names each animal has received in conſequence thereof; and then proceed to give their hiſtory together, ſtill marking any peculiarity obſervable in one of the ſpecies, which is not found in the reſt.

Next to the great panther, already mentioned, is the animal which Mr. Buffon calls the Leopard, a name which he acknowledges to be given arbitrarily, for the ſake of diſtinction. Other naturaliſts have not much attended to the ſlight differences between this and the great panther, nor have they conſidered its diſcriminations as ſufficient to entitle it to another name. It has hitherto, therefore, gone under the name of the Leopard, or Panther of Senegal, where it is chiefly found. The differences between this animal and the former are theſe: the large panther is often found to be ſix feet long, from

the tip of the noſe to the inſertion of the tail; the panther of Senegal is not above four. The large panther is marked with ſpots in the manner of a roſe, that is, five or ſix make a kind of circle, and there is generally a large one in the middle. The leopard of Senegal has a much more beautiful coat, the yellow is more brilliant, and the ſpots are ſmaller, and not diſpoſed in rings but in cluſters. As to the reſt, they are both whitiſh under the belly; the tail in both is pretty long, but rather longer in proportion in the latter, than the former. To theſe two animals, whoſe differences ſeem to be ſo very minute, we may add a third; namely, the Jaguar or Panther of America. This, in every reſpect, reſembles the two former, except in the diſpoſition of its ſpots, and that its neck and head are rather ſtreaked than ſpotted. The jaguar is alſo ſaid to be lower upon its legs, and leſs than the leopard of Senegal. Theſe three quadrupedes, as we ſee, have but very ſlight differences, and the princpal diſtinction uſed by Mr. Buffon, is taken from the ſize; the firſt, as he ſays, is uſually ſix feet long; the ſecond, four feet; and the laſt, about three: however, it appears from the particular ſubjects of his deſcription, that the panther in his poſſeſſion was not above three feet ſeven inches long; that



De Seve del. Js. Taylor sculp.

The Male Panther.

the leopard's ſkin which he deſcribes, was about four; and that the jaguar, at two years old, was between two and three feet long, which, when come to its full growth, would, no doubt, be four feet long, as well as the two former. From hence, therefore, we may conclude, that the ſize in theſe animals is not ſufficient to make a diſtinction among them; and that thoſe who called them all three by the indiſcriminate names of the leopard and the panther, if not right, were at leaſt excuſeable. Of thoſe which are now to be ſeen in the Tower, the jaguar, or the American panther, is rather the largeſt of the three; and is by no means the contemptible animal which Mr. Buffon deſcribes it to be: the leopard is the leaſt of them, and has, by ſome travellers, been ſuppoſed to be an animal produced between the panther and the ounce, an animal which reſembles, but is leſs than any of the former. Theſe three animals we may, therefore, rank together, as they agree pretty nearly in their robe, their ſize, their diſpoſitions, and their ferocity.

We come next to an animal confeſſedly different from any of the former, being much ſmaller, and its colour more inclining to white. Its name, however, in our language, has cauſed no ſmall confuſion. It has been ge-

nerally called by foreigners, the Onza, or the Ounce, and this name ſome of our own writers have thought proper to give it; but others of them, and theſe the moſt celebrated, ſuch as Willughby, have given this name to a different animal with a ſhort tail, and known to the ancients and moderns by the name of the Lynx. I confeſs myſelf at a loſs, in this caſe, whom to follow; the alteration of names ſhould be always made with great caution, and never but in caſes of neceſſity. If we follow Willughby, there will be an animal of the panther kind, very diſtinguiſhable from all the reſt, left without a name; and if we recede from him, it will ſerve to produce ſome confuſion among all the numerous claſs of readers and writers who have taken him for their guide: however, as he ſeems himſelf to have been an innovator, the name of the lynx having been long adopted into our language before, it was unneceſſary to give the animal that bore it another name, and to call that creature an ounce, which our old writers had been accuſtomed to know by the Latin appellation, for this reaſon, therefore, we may ſafely venture to take a name that has been long miſapplied from the lynx, and reſtore it to the animal in queſtion. We will, therefore, call that animal of the panther kind,

De Seve del. Is. Taylor sculp.

The Lynx.

which is leſs than the panther, and with a longer tail, the ounce; and the lynx may remain in poſſeſſion of that name by which it was known among all our old Engliſh writers, as well as by all antiquity.

The Ounce, or the Onca of Linnæus, is much leſs than the panther, being not, at moſt above three feet and a half long: however, its hair is much longer than that of the panther, and its tail ſtill more ſo. The panther of four or five feet long, has a tail but of two feet, or two feet and a half. The ounce, which is but about three feet, has a tail often longer than the reſt of its body. The colour of the ounce is alſo apparently different, being rather more inclining to a cream colour, which is deeper on the back, and whiter towards the belly. The hair on the back is an inch and a half long; that on the belly, two inches and an half; which is much longer than that of the panther. Its ſpots are diſpoſed pretty much in the ſame manner as the large panther, except that on the haunches it is rather marked with ſtripes than with ſpots.

Deſcending to animals of this kind that are ſtill ſmaller, we find the Catamountain, which is the Ocelot of Mr. Buffon, or the Tiger Cat of moſt of thoſe who exhibit it as a ſhow. It is

leſs than the ounce, but its robe more beautifully variegated. It is an American animal, and is about two feet and an half in length, from the noſe to the inſertion of the tail. It is extremely like a cat, except that it is larger and ſlenderer, that its colours are more beautiful, and its tail rather ſhorter. The fur is of a reddiſh colour, the whole beautified with black ſpots, and ſtreaks of different figures. They are long on the back, and round on the belly and paws. On the ears are black ſtripes, which run acroſs; but, in other reſpects, they entirely reſemble thoſe of a cat. Theſe colours, however, which naturaliſts have taken great pains minutely to deſcribe, are by no means permanent, being differently diſpoſed in different animals of the ſame ſpecies. I remember to have ſeen an animal of this ſize, but whether of this ſpecies I will not pretend to ſay, ſome years ago, that was entirely brown, and was ſaid alſo to have come from America.

From this tribe of the cat kind with ſpotted ſkins and a long tail, we come to another, with ſkins diverſified in like manner, but with a ſhorter tail. The principal of theſe is the Lynx, the name by which the animal was known to Ælian, among the ancients; and to all our old Engliſh writers, among thoſe of a

more modern date. This name has been corrupted by the Portugueſe into the word Ouze; and this corruption has been adopted by Ray, who has improperly called this animal the Ounce, after ſome of the foreign travellers. The firſt ſtriking diſtinction between the lynx, and all thoſe of the panther kind, is in its tail, which is at leaſt half as ſhort in proportion, and black at the extremity. Its fur is much longer, the ſpots on the ſkin leſs vivid, and but confuſedly mingled with the reſt. Its ears are much longer, and tipped at the points with a black tuft of hair. The colour round the eyes is white, and the phyſiognomy more placid and gentle. Each hair of this animal is of three different colours: the root is of a greyiſh brown; the middle red, or of an aſh colour; and the ends white. This whiteneſs at the ends takes up ſo ſmall a part of the particular hair, that it does not prevent us from ſeeing the principal colour, which is that of the middle part; ſo that it only makes the ſurface of the body appear as if it was ſilvered over: however, the hair of which the ſpots conſiſt, has no white at the ends, and at the roots it is not quite ſo black as the other part. This animal is not above the ſize of the ounce, but is rather ſtronger built, and it has

but twenty-eight teeth, whereas all the reſt of the cat kind already mentioned have thirty.

Another animal of this kind is called the Syaguſh, or, as Mr. Buffon names it, the Caracal. It is a native of the Eaſt-Indies, and reſembles the lynx in ſize, in form, and even in the ſingularity of being tufted at the tips of the ears. However, the ſyaguſh differs in not being mottled as the lynx is; its fur, or rather hair, is rougher and ſhorter; its tail is rather longer, its muzzle more lengthened, its phyſiognomy more fierce, and its nature more ſavage.

The third and laſt animal that need be mentioned of this kind, is that which Mr. Buffon calls the Serval, and which he has firſt deſcribed. It is a native of Malabar, reſembling the panther in its ſpots, but the lynx in the ſhortneſs of its tail, in its ſize, and in its ſtrong built form.

Theſe ſeem to be all the principal diſtinctions among animals of the panther kind, from the largeſt of this tribe down to the domeſtic cat, which is the ſmalleſt of all theſe fierce and miſchievous varieties. In all, their nature ſeems pretty much the ſame; being equally fierce, ſubtle, cruel, and cowardly. The panther, including the leopard and the jaguar, or American panther, as they are the largeſt, ſo

De Seve del. Js. Taylor sculp.

The Syagush.

alſo are they the moſt dangerous of this kind; for the whole race of cats are noxious in proportion to their power to do miſchief. They inhabit the moſt torrid latitudes of India, Africa, and America, and have never been able to multiply beyond the torrid zone. They are generally found in the thickeſt and the moſt entangled foreſts, and often near remote habitations, where they watch to ſurpriſe all kinds of domeſtic animals. They very ſeldom attack man, even though provoked by him; they ſeem rather deſirous of finding ſafety by flight, or by climbing trees, at which they are very expert. In this manner alſo they often purſue their prey; and, being expert at ſeizing it, as well above as below, they cauſe a vaſt deſtruction. Of all other animals, theſe are the moſt ſullen, and, even to a proverb, untameable. They ſtill preſerve their fierce and treacherous ſpirit; and at thoſe places where they are expoſed to be ſeen among others, we often obſerve, that while their keeper is familiar with the lion or the bear, yet he is apprehenſive of the large panther, and keeps it bound with the ſhorteſt chain.

As the ounce differs from theſe in figure and ſize, ſo alſo it ſeems to differ in diſpoſition, being more mild, tractable, and tame. Theſe

we frequently see as harmless and innocent as cats; and there is one at present in the Tower, with which the keeper plays without the smallest apprehension. I own I was not a little uneasy, at first, for the man, when he put his hand through the bars, and called the animal by its name; but was a good deal surprised to see the creature, which one might suppose irritated by long confinement, come gently up to him, stroak his hand with its face, in the manner of a cat, and testify the utmost gentleness of disposition. The ounce, therefore, is remarkable for being easily tamed; and, in fact, it is employed all over the East for the purposes of hunting. Not, indeed, but that panthers themselves are sometimes used for this purpose; but they are never thoroughly subdued like the former, being usually brought to the field in a carriage, and kept chained and caged until they are shewn the gazelle, or the leveret, which is their prey. This they pursue rather by three or four great springs, than by running. If they seize it by this sudden effort, it finds no mercy; but if it escapes from their first effort, they never attempt to pursue, and appear quite disappointed and confounded at their mischance. It sometimes happens that they are so much enraged at it, that they attack even their employer, and

his only reſource to avoid their fury, is to throw them ſome ſmall pieces of meat, which he has brought with him for that purpoſe.

The ounce, however, is not ſo dangerous; and is treated with more confidence and familiarity. It is uſually brought to the field hoodwinked behind one of the horſemen. When the game appears, the ounce is inſtantly uncovered, and ſhewn where it lies; upon which the fierce creature darts like an arrow to the place, and ſeizes it at once, or, miſſing it, remains motionleſs in the place. It would be vain to attempt retrieving its diſgrace by continuing the purſuit; for, although it bounds with greater agility than moſt other animals, yet it is ſlow and aukward in running, and has no means of finding the animal it purſues by the ſmell, as is common among thoſe of the dog kind. From hence, therefore, it appears how much ſuperior the European method of hunting is to that of the Aſiatic; ſince whatever amuſement this exerciſe affords muſt ariſe from the continuance of the chace, and from the fluctuation of doubt and expectation, which raiſe and depreſs the purſuers by turns. All this an Aſiatic hunter is deprived of; and his greateſt pleaſure can ſcarcely be more than what among us is called courſing, in which the

dog purſues the animal, and keeps it conſtantly in view.

But it muſt not be ſuppoſed that it is from choice the Aſiatics uſe this method of chace; for, no doubt, were dogs ſerviceable among them, as they are in Europe, they would be employed for the ſame purpoſes. But the fact is, that the extreme heat of the tropical climates produces ſuch univerſal putrefaction, and ſends up ſuch various and powerful ſcents, that dogs are at firſt bewildered in the chace, and at laſt come to loſe the delicacy of their ſcent entirely. They are, therefore, but little uſed in thoſe warm countries; and what could they avail in places where almoſt every other animal of the foreſt is ſtronger and more rapacious? The lion, the tiger, the panther, and the ounce, are all natural enemies to the dog, and attack him, wherever he appears, with ungovernable fury. The breed, therefore, in thoſe places, would quickly be deſtroyed; ſo that they are obliged to have recourſe to thoſe animals which are more fitted to ſerve them; and thus convert the ounce to thoſe purpoſes for which dogs are employed in Europe.

The Catamountain, or Ocelot, is one of the fierceſt, and, for its ſize, one of the moſt deſtructive animals in the world. It is, as was

before obſerved, a native of South-America, and by no means capable of the ſame education as the ounce, which it more approaches in ſize than in diſpoſition. Two of theſe, from whom Mr. Buffon has taken his deſcription, were brought over from Carthagena, and having been taken from the dam when very young, were afterwards ſuckled by a bitch. But, before they were three months old, they had ſtrength and ingratitude ſufficient to kill and devour their nurſe. Their ſucceeding fierceneſs and malignity ſeemed to correſpond with their firſt efforts; for no arts could tame or ſoften their natures; and while they continued in their cages, they ſtill teſtified an unceaſing diſpoſition for ſlaughter. When their food was given them, the male always ſerved himſelf before the female ventured to touch a bit; and it was not till he was ſatisfied that the other began. In their ſavage ſtate, theſe animals are ſtill more deſtructive; having great ſtrength and agility, they very eaſily find and overtake their prey, which they purſue among the tops of the trees, as well as on the ground; but what renders them ſtill more miſchievous, is their unceaſing appetite rather for the blood than the fleſh of their prey. They ſuck this with the greateſt avidity, but frequently leave the carcaſe otherwiſe un-

touched, in order to purſue other animals for the blood in like manner. They generally continue on the tops of trees, like our wild cats; where they make their neſt, and often bring forth their young. When they ſpy any animal they can maſter, and there are but few in the foreſt but what are inferior, they dart down upon it with inevitable exactneſs.

The whole tribe of animals of the panther kind, with long tails, are chiefly inhabitants, as was ſaid, of the torrid zone; but thoſe of the ſhort-tailed kind, and particularly the lynx, is principally found in the cold countries that are bordering on the pole. The lynx is chiefly to be met with in the north of Germany, Lithuania, Muſcovy, Siberia, and North-America. Thoſe of the new continent, however, are rather ſmaller than in Europe, as is the caſe with almoſt all their quadrupedes; they are ſomewhat whiter alſo, but in other reſpects there is ſcarce any difference to be found among them *. This animal has been called by ſome *Lupus Cervarius*, or a creature compounded between a wolf and a ſtag; but for what reaſon is hard to gueſs; it no way reſembles either in ſhape or in diſpoſition. In its nature, it exactly reſembles the cat, except that, being bigger and

* Buffon.

nearly two feet long, it is bolder and fiercer. Like the cat, it climbs trees, and ſeeks its prey by ſurprize; like the cat, it is delicate and cleanly, covering its urine with its paws; and it reſembles the wolf in nothing except its cry, which often deceives the hunters, and induces them to think they hear a wolf and not a lynx. This animal alſo, is rather more delicate than the cat; and, after having once feaſted upon its prey, will never return to it again, but hunts the woods for another. From hence may have ariſen the common report of the lynx having, of all other quadrupedes, the ſhorteſt memory. This, however, is not the only idle ſtory that has been propagated of it: as of its ſeeing with ſuch perſpicuity as to perceive objects through walls and mountains; as of having its urine of ſuch a quality, as to harden, and become a precious ſtone; with ſeveral others, propagated by ignorance or impoſture.

The Syaguſh and the Serval are both ſo like all the reſt of the cat kind in diſpoſition, that it is but repeating the ſame account once more to give their diſtinct hiſtory. As the lynx is found only in cold countries, ſo the ſyaguſh is to be met with only in the warm tropical climates. It is uſed, in the ſame manner as the ounce, for hunting; but it ſeems to have a property which

the other has not; namely, that of being able to overtake its prey by pursuing it. Whether this is performed by having a finer scent than the former, or greater swiftness, we are not informed; being only told that when it overtakes either the gazelle or the antelope, it leaps upon their backs, and, getting forward to their shoulders, scratches their eyes out, by which means they become an easy prey to the hunters. Some have called this animal the lion's provider; and it is said that when it calls him to pursue his prey, its voice very much resembles that of one man calling another *. From hence we may conjecture that this animal pursues its prey in full cry, and that the lion only follows to partake or seize the spoil. The same account is given also of the jackal; and very probably it may be true, not only of these animals, but of some others, since it is natural enough to suppose that the lion will pursue whenever he is taught to discover his prey.

We had one of these animals a few years ago sent over from the East-Indies, but it was not able to endure the change of climate, and it died in a very short time after it was brought to the Tower. Whether consumed by disease or not I cannot tell, but it seemed to me much

* Thevenot, vol. ii. p. 114.

ſlenderer than the cat or the lynx, and its ears were much longer; however, it is a very ſtrong creature for its ſize, and has been known to kill a large dog in ſingle combat*: nevertheleſs, it is, like all of the cat kind except the lion, remarkable for its cowardice, and will never, except in caſes of neceſſity, attack an animal that is its equal in ſtrength or activity. For this reaſon, when brought into the field, and put upon a ſervice of danger, it obſtinately refuſes, and is alert only in the purſuit of animals that are too feeble for reſiſtance, or too timid to exert their ſtrength.

From what has been ſaid of this rapacious tribe, we perceive a ſimilitude in the manners and diſpoſitions of them all, from the lion to the cat. The ſimilitude of their internal conformation, is ſtill more exact; the ſhortneſs of their inteſtines, the number of their teeth, and the ſtructure of their paws. The firſt of this claſs is the Lion, diſtinguiſhable from all the reſt by his ſtrength, his magnitude, and his mane. The ſecond is the Tiger, rather longer than the lion, but not ſo tall, and known by the ſtreaks and the vivid beauty of its robe; including alſo the American tiger or cougar; diſtinguiſhable by its ſize, next that of the tiger,

* Buffon.

its tawny colour, and its spots. The third is the Panther and the Leopard. The fourth is the Ounce, not ſo large as any of the former, ſpotted like them, but diſtinguiſhable by the cream-coloured ground of its hair, and the great length of its tail, being above the length of its body. The fifth is the Catamountain or Tiger cat, leſs than the ounce, but differing particularly in having a ſhorter tail, and being ſtreaked down the back like a tiger. The ſixth is the ſhort-tailed kind, namely, the Lynx, of the ſize of the former, but with a ſhort tail, ſtreaked, and the tips of its ears tufted with black. The ſeventh is the Syaguſh, differing from the lynx in not being mottled like it, in not being ſo large, and in having the ears longer, though tipped with black, as before. The eighth is the Serval, reſembling the lynx in its form, and the ſhortneſs of its tail; ſtreaked alſo like it, but not having the tips of its ears tufted. Laſtly, the Cat, wild and tame, with all its varieties; all leſs than any of the former, but, like them, equally inſidious, rapacious, and cruel.

This whole race may be conſidered as the moſt formidable enemy of mankind; there are others indeed ſtronger, but they are gentle, and never offer injury till injured: there are others

more numerous, but they are more feeble, and rather look for safety by hiding from man, than opposing him. These are the only quadrupedes that make good their ground against him; and which may be said to keep some kingdoms of the earth in their own possession. How many extensive countries are there in Africa, where the wild beasts are so numerous, that man is deterred from living amongst them: reluctantly giving up to the lion and the leopard, extensive tracts, that seem formed only for his delight and convenience!

CHAP.

CHAP. VIII.

Animals of the Dog Kind.

THE second clafs of carnivorous quadrupedes may be denominated thofe of the dog kind. This clafs is neither fo numerous nor fo powerful as the former, and yet neither fo treacherous, rapacious, or cowardly. This clafs may be principally diftinguifhed by their claws, which have no fheath, like thofe of the cat kind, but ftill continue at the point of each toe, without a capability of being ftretched forward, or drawn back. The nofe alfo, as well as the jaw, of all the dog kind, is longer than in the cat; the body is, in proportion, more ftrongly made, and covered with hair inftead of fur. There are many internal diftinctions alfo; as in the inteftines, which are much longer in the dog kind than in thofe of the cat; the eye is not formed for night vifion; and the olfactory nerves are diffufed, in the dog kinds, upon a very extenfive membrane within the fcull.

If we compare the natural habitudes of this clafs with the former, we fhall find that the dog kinds are not fo folitary as thofe of the cat, but love to hunt in company, and encourage each other with their mutual cries. In this manner

the dog and the jackall purſue their prey; and the wolf and fox, which are of this kind, though more ſolitary and ſilent among us, yet, in countries where leſs perſecuted, and where they can more fearleſs diſplay their natural inclinations, they are found to keep together in packs, and purſue their game with alternate howlings.

Animals of the dog kind want ſome of the advantages of the cat kind, and yet are poſſeſſed of others in which the latter are deficient. Upon obſerving their claws, it will eaſily be perceived that they cannot, like cats, purſue their prey up the ſides of a tree, and continue the chace among the branches; their unmanageable claws cannot ſtick in the bark, and thus ſupport the body up along the trunk, as we ſee the cat very eaſily perform: whenever, therefore their prey flies up the tree from them, they can only follow it with their eyes, or watch its motions till hunger again brings it to the ground. For this reaſon, the proper prey of the dog kind, are only thoſe animals that, like themſelves, are unfitted for climbing; the hare, the rabbit, the gazelle, or the roebuck.

As they are, in this reſpect, inferior to the cat, ſo they exceed it in the ſenſe of ſmelling; by which alone they purſue their prey with certainty of ſucceſs, wind it through all its

mazes, and tire it down by perseverance. It often happens, however, in the savage state, that their prey is either too much diminished, or too wary to serve for a sufficient supply. In this case, when driven to an extremity, all the dog kinds can live for some time upon fruits and vegetables, which, if they do not please the appetite, at least serve to appease their hunger.

Of all this tribe, the Dog has every reason to claim the preference, being the most intelligent of all known quadrupedes, and the acknowledged friend of mankind. The dog*, independent of the beauty of his form, his vivacity, force, and swiftness, is possessed of all those internal qualifications that can conciliate the affections of man, and make the tyrant a protector. A natural share of courage, an angry and ferocious disposition, renders the dog, in its savage state, a formidable enemy to all other animals: but these readily give way to very different qualities in the domestic dog, whose only ambition seems the desire to please; he is seen to come crouching along, to lay his force, his courage, and all his useful talents, at the feet of his master; he waits his orders, to

* The rest of this description of the dog is taken from Mr. Buffon; what I have added, is marked as before.

which

which he pays implicit obedience; he conſults his looks, and a ſingle glance is ſufficient to put him in motion; he is more faithful even than the moſt boaſted among men; he is conſtant in his affections, friendly without intereſt, and grateful for the ſlighteſt favours; much more mindful of benefits received than injuries offered; he is not driven off by unkindneſs; he ſtill continues humble, ſubmiſſive, and imploring; his only hope to be ſerviceable, his only terror to diſpleaſe; he licks the hand that has been juſt lifted to ſtrike him, and at laſt diſarms reſentment, by ſubmiſſive perſeverance.

More docile than man, more obedient than any other animal, he is not only inſtructed in a ſhort time, but he alſo conforms to the diſpoſitions and the manners of thoſe who command him. He takes his tone from the houſe he inhabits; like the reſt of the domeſtics, he is diſdainful among the great, and churliſh among clowns. Always aſſiduous in ſerving his maſter, and only a friend to his friends, he is indifferent to all the reſt, and declares himſelf openly againſt ſuch as ſeem to be dependent like himſelf. He knows a beggar by his cloaths, by his voice, or his geſtures, and forbids his approach. When at night the guard of the

houſe is committed to his care, he ſeems proud of the charge; he continues a watchful centinel, he goes his rounds, ſcents ſtrangers at a diſtance, and gives them warning of his being upon duty. If they attempt to break in upon his territories, he becomes more fierce, flies at them, threatens, fights, and either conquers alone, or alarms thoſe who have moſt intereſt in coming to his aſſiſtance; however, when he has conquered, he quietly repoſes upon the ſpoil, and abſtains from what he has deterred others from abuſing; giving thus at once a leſſon of courage, temperance, and fidelity.

From hence we ſee of what importance this animal is to us in a ſtate of nature. Suppoſing, for a moment, that the ſpecies had not exiſted, how could man, without the aſſiſtance of the dog, have been able to conquer, tame, and reduce to ſervitude, every other animal? How could he diſcover, chace, and deſtroy, thoſe that were noxious to him? In order to be ſecure, and to become maſter of all animated nature, it was neceſſary for him to begin by making a friend of a part of them; to attach ſuch of them to himſelf, by kindneſs and careſſes, as ſeem fitteſt for obedience and active purſuit. Thus the firſt art employed by man, was in conciliating the favour of the dog; and

the fruits of this art were, the conqueſt and peaceable poſſeſſion of the earth.

The generality of animals have greater agility, greater ſwiftneſs, and more formidable arms, from nature, than man: their ſenſes, and particularly that of ſmelling, are far more perfect: the having gained, therefore, a new aſſiſtant, particularly one whoſe ſcent is ſo exquiſite as that of the dog, was the gaining a new ſenſe, a new faculty, which before was wanting. The machines and inſtruments which we have imagined for perfecting the reſt of the ſenſes, do not approach to that already prepared by nature, by which we are enabled to find out every animal, though unſeen, and thus deſtroy the noxious, and uſe the ſerviceable.

The dog, thus uſeful in himſelf, taken into a participation of empire, exerts a degree of ſuperiority over all animals that require human protection. The flock and the herd obey his voice more readily even than that of the ſhepherd or the herdſman; he conducts them, guards them, keeps them from capriciouſly ſeeking danger, and their enemies he conſiders as his own. Nor is he leſs uſeful in the purſuit; when the ſound of the horn, or the voice of the huntſman calls him to the field, he teſtifies his pleaſure by every little art, and purſues with

perſeverance, thoſe animals, which, when taken, he muſt not expect to divide. The deſire of hunting is indeed natural to him as well as to his maſter, ſince war and the chace are the only employment of ſavages. All animals that live upon fleſh hunt by nature; the lion and the tiger, whoſe force is ſo great that they are ſure to conquer, hunt alone, and without art; the wolf, the fox, and the wild dog, hunt in packs, aſſiſt each other, and partake the ſpoil. But when education has perfected this talent in the domeſtic dog, when he has been taught by man to repreſs his ardour, to meaſure his motions, and not to exhauſt his force by too ſudden an exertion of it, he then hunts with method, and always with ſucceſs.

"Although the wild dog, ſuch as he was before he came under the protection of mankind, is at preſent utterly unknown, no ſuch animal being now to be found in any part of the world, yet there are many that, from a domeſtic ſtate, have turned ſavage, and entirely purſue the dictates of nature." In thoſe deſerted and uncultivated countries where the dog is found wild, they ſeem entirely to partake of the diſpoſition of the wolf; they unite in large bodies, and attack the moſt formidable animals of the foreſt, the cougar, the panther, and the biſon,

In America, where they were originally brought by the Europeans, and abandoned by their maſters, they have multiplied to ſuch a degree, that they ſpread in packs over the whole country, attack all other animals, and even man himſelf does not paſs without inſult. They are there treated in the ſame manner as all other carnivorous animals, and killed wherever they happen to come: however, they are eaſily tamed: when taken home, and treated with kindneſs and lenity, they quickly become ſubmiſſive and familiar, and continue faithfully attached to their maſters. Different in this from the wolf or the fox, who, though taken never ſo young, are gentle only while cubs, and, as they grow older, give themſelves up to their natural appetites of rapine and cruelty. In ſhort, it may be aſſerted, that the dog is the only animal whoſe fidelity is unſhaken; the only one who knows his maſter, and the friends of the family; the only one who inſtantly diſtinguiſhes a ſtranger; the only one who knows his name, and anſwers to the domeſtic call; the only one who ſeems to underſtand the nature of ſubordination, and ſeeks aſſiſtance; the only one who, when he miſſes his maſter, teſtifies his loſs by his complaints; the only one who, carried to a diſtant place, can find the way

home; the only one whoſe natural talents are evident, and whoſe education is always ſucceſsful.

In the ſame manner, as the dog is of the moſt complying diſpoſition, ſo alſo is it the moſt ſuſceptible of change in its form; the varieties of this animal being too many for even the moſt careful deſcriber to mention. The climate, the food, and the education, all make ſtrong impreſſions upon the animal, and produce alterations in its ſhape, its colour, its hair, its ſize, and in every thing but its nature. The ſame dog, taken from one climate, and brought to another, ſeems to become another animal; but different breeds are as much ſeparated, to all appearance, as any two animals the moſt diſtinct in nature. Nothing appears to continue conſtant with them, but their internal conformation; different in the figure of the body, in the length of the noſe, in the ſhape of the head, in the length and the direction of the ears and tail, in the colour, the quality, and the quantity of the hair; in ſhort, different in every thing but that make of the parts which ſerve to continue the ſpecies, and keep the animal diſtinct from all others. It is this peculiar conformation, this power of producing an animal that can reproduce, that

marks the kind, and approximates forms that at firſt ſight ſeem never made for conjunction.

From this ſingle conſideration, therefore, we may at once pronounce all dogs to be of one kind; but which of them is the original of all the reſt, which of them is the ſavage dog from whence ſuch a variety of deſcendants have come down, is no eaſy matter to determine. We may eaſily indeed, obſerve, that all thoſe animals which are under the influence of man, are ſubject to great variations. Such as have been ſufficiently independent, ſo as to chuſe their own climate, their own nouriſhment, and to purſue their own habitudes, preſerve the original marks of nature, without much deviation; and it is probable, that the firſt of theſe is even at this day very well repreſented in their deſcendants. But ſuch as man has ſubdued, tranſported from one climate to another, controlled in their manner of living, and their food, have moſt probably been changed alſo in their forms: particularly the dog has felt theſe alterations more ſtrongly than any other of the domeſtic kinds; for living more like man, he may be thus ſaid to live more irregularly alſo, and, conſequently, muſt have felt all thoſe changes that ſuch variety would naturally produce. Some other cauſes alſo may be aſſigned

for this variety in the ſpecies of the dog: as he is perpetually under the eye of his maſter, when accident has produced any ſingularity in its productions, man uſes all his art to continue this peculiarity unchanged; either by breeding from ſuch as had thoſe ſingularities, or by deſtroying ſuch as happened to want them; beſides, as the dog produces much more frequently than ſome other animals, and lives a ſhorter time, ſo the chance for its varieties will be offered in greater proportion.

But which is the original animal, and which the artificial or accidental variety, is a queſtion which, as was ſaid, is not eaſily reſolved. If the internal ſtructure of dogs of different ſorts be compared with each other, it will be found, except in point of ſize, that in this reſpect they are exactly the ſame. This, therefore, affords no criterion. If other animals be compared with the dog internally, the wolf and the fox will be found to have the moſt perfect reſemblance: it is probable, therefore, that the dog which moſt nearly reſembles the wolf or the fox externally, is the original animal of its kind; for it is natural to ſuppoſe, that as the dog moſt nearly reſembles them internally, ſo he may be near them in external reſemblance alſo, except where art or accident has altered

his form. This being ſuppoſed, if we look among the number of varieties to be found in the dog, we ſhall not find one ſo like the wolf or the fox, as that which is called the Shepherd's Dog. This is that dog with long coarſe hair on all parts except the noſe, pricked ears, and a long noſe, which is common enough among us, and receives his name from being principally uſed in guarding and attending on ſheep. This ſeems to be the primitive animal of his kind; and we ſhall be the more confirmed in this opinion, if we attend to the different characters which climate produces in this animal, and the different races of dogs which are propagated in every country: and, in the firſt place, if we examine thoſe countries which are ſtill ſavage, or but half civilized, where it is moſt probable the dog, like his maſter, has received but few impreſſions from art, we ſhall find the ſhepherd's dog, or one very like him, ſtill prevailing amongſt them. The dogs that have run wild in America, and in Congo, approach this form. The dog of Siberia, Lapland, and Iceland, of the Cape of Good Hope, of Madagaſcar, Madura, Calicut, and Malabar, have all a long noſe, pricked ears, and reſemble the ſhepherd's dog very nearly. In Guinea, the dog very ſpeedily takes

this form; for, at the ſecond or third generation, the animal forgets to bark, his ears and his tail become pointed, and his hair drops off, while a coarſer, thinner kind comes in the place. This ſort of dog is alſo to be found in the temperate climates in great abundance, particularly among thoſe who, preferring uſefulneſs to beauty, employ an animal that requires very little inſtruction to be ſerviceable. Notwithſtanding this creature's deformity, his melancholy and ſavage air, he is ſuperior to all the reſt of his kind in inſtinct; and, without any teaching, naturally takes to tending flocks, with an aſſiduity and vigilance that at once aſtoniſhes, and yet relieves his maſter.

In more poliſhed and civilized places, the dog ſeems to partake of the univerſal refinement; and, like the men, becomes more beautiful, more majeſtic, and more capable of aſſuming an education foreign to his nature. The dogs of Albany, of Greece, of Denmark, and of Ireland, are larger and ſtronger than thoſe of any other kind. In France, Germany, Spain, and Italy, the dogs are of various kinds, like the men; and this variety ſeems formed by croſſing the breed of ſuch as are imported from various climates.

The ſhepherd's dog may, therefore, be con-

ſidered as the primitive ſtock from whence theſe varieties are all derived. He makes the ſtem of that genealogical tree which has been branched out into every part of the world. This animal ſtill continues pretty nearly in its original ſtate among the poor in temperate climates; being tranſported into the colder regions, he grows leſs and more ugly among the Laplanders; but becomes more perfect in Iceland, Ruſſia, and Siberia, where the climate is leſs rigorous, and the people more civilized. Whatever differences there may be among the dogs of theſe countries, they are not very conſiderable, as they all have ſtrait ears, long and thick hair, a ſavage aſpect, and do not bark either ſo often or ſo loud as dogs of the more cultivated kind.

The ſhepherd's dog, tranſported into the temperate climates, and among people entirely civilized, ſuch as England, France, and Germany, will be diveſted of his ſavage air, his pricked ears, his rough, long, and thick hair, and, from the ſingle influence of climate and food alone, will become either a Matin, a Maſtiff, or an Hound. Theſe three ſeem the immediate deſcendants of the former; and from them the other varieties are produced.

The Hound, the Harrier, and the Beagle,

ſeem all of the ſame kind; for although the bitch is covered but by one of them, yet in her litters are found puppies reſembling all the three. This animal, tranſported into Spain or Barbary, where the hair of all quadrupedes becomes ſoft and long, will be there converted into the land-ſpaniel, and the water-ſpaniel, and theſe of different ſizes.

The Grey Matin Hound, which is the ſecond branch, tranſported to the North, becomes the great Daniſh dog; and this, ſent into the ſouth, becomes the grey-hound, of different ſizes. The ſame, tranſported into Ireland, the Ukraine, Tartary, Epirus, and Albania, becomes the great wolf-dog, known by the name of the Iriſh wolf-dog.

The Maſtiff, which is the third branch, and chiefly a native of England, when tranſported into Denmark, becomes the little Daniſh dog; and this little Daniſh dog, ſent into the tropical and warm climates, becomes the animal called the Turkiſh dog, without hair. All theſe races, with their varieties, are produced by the influence of climate, joined to the different food, education, and ſhelter, which they have received among mankind. All other kinds may be conſidered as mongrel races, produced by the concurrence of theſe, and found rather by croſſing

the breed than by attending to the individual. " As theſe are extremely numerous, and very different in different countries, it would be almoſt endleſs to mention the whole; beſides, nothing but experience can aſcertain the reality of theſe conjectures already made, although they have ſo much the appearance of probability; and until that gives more certain information, we muſt be excuſed from entering more minutely into the ſubject.

" With regard to the dogs of our country in particular, the varieties are very great, and the number every day encreaſing. And this muſt happen in a country ſo open by commerce to all others, and where wealth is apt to produce capricious predilection. Here the uglieſt and the moſt uſeleſs of their kinds will be entertained merely for their ſingularity; and, being imported only to be looked at, they will loſe even that ſmall degree of ſagacity which they poſſeſſed in their natural climates. From this importation of foreign uſeleſs dogs, our own native breed is, I am informed, greatly degenerated, and the varieties now to be found in England much more numerous than they were in the times of Queen Elizabeth, when Doctor Caius attempted their natural hiſtory. Some of theſe he mentions are no longer to be found

among us, although many have ſince been introduced, by no means ſo ſerviceable as thoſe, which have been ſuffered to decay.

"He divides the whole race into three kinds. The firſt is, the generous kind, which conſiſts of the tarrier, the harrier, and the blood-hound; the gaze-hound, the grey-hound, the leymmer, and the tumbler; all theſe are uſed for hunting. Then the ſpaniel, the ſetter, and the water-ſpaniel, or finder, were uſed for fowling; and the ſpaniel, gentle, or lap-dog, for amuſement. The ſecond is the farm kind, conſiſting of the ſhepherd's dog and the maſtiff. And the third is the mongrel kind; conſiſting of the wappe, the turn-ſpit, and the dancer. To theſe varieties we may add at preſent, the bull-dog, the Dutch maſtiff, the harlequin, the pointer, and the Dane, with a variety of lap-dogs, which, as they are perfectly uſeleſs, may be conſidered as unworthy of a name.

"The Tarrier is a ſmall kind of hound *, with rough hair, made uſe of to force the fox or the badger out of their holes; or rather to give notice, by their barking, in what part of their kennel the fox or badger reſides, when the ſportſmen intend to dig them out.

The Harrier, as well as the beagle and the

* Britiſh Zoology.

fox-hound are used for hunting; of all other animals, they have the quickest and most distinguishing sense of smelling. The properly breeding, matching, and training these, make up the business of many men's lives.

"The Blood-hound was a dog of great use, and in high esteem among our ancestors. Its employ was to recover any game that had escaped wounded from the hunter, or had been killed, and stolen out of the forest. But it was still more employed in hunting thieves and robbers by their footsteps. At that time, when the country was less peopled than at present, and when, consequently, the footsteps of one man were less crossed and obliterated by those of others, this animal was very serviceable in such pursuits; but at present, when the country is every where peopled, this variety is quite worn out; probably because it was found of less service than formerly.

"The Gaze-hound hunted, like our greyhounds, by the eye and not by the scent. It chaced indifferently the fox, hare, or buck. It would select from the herd the fattest and fairest deer, pursue it by the eye, and if lost recover it again with amazing sagacity. This species is now lost or unknown among us.

"The Grey-hound is very well known at pre-

ſent, and was formerly held in ſuch eſtimation, that it was the peculiar companion of a gentleman; who, in the times of ſemi-barbariſm, was known by his horſe, his hawk, and his greyhound. Perſons under a certain rank of life are forbidden, by ſome late game-laws, from keepin this animal; wherefore, to diſguiſe it the better, they cut off its tail.

"The Leymmer is a ſpecies now unknown to us. It hunted both by ſcent and ſight, and was led in a leyme or thong, from whence it received its name.

"The Tumbler was leſs than the hound, more ſcraggy, and had pricked ears; ſo that by the deſcription it ſeems to anſwer to the modern lurcher. This took its prey by mere cunning, depending neither on the goodneſs of its noſe nor its ſwiftneſs. If it came into a warren, it neither barked nor ran on the rabbits; but, ſeemingly inattentive, approached ſufficiently near till it came within reach, and then ſeized them by a ſudden ſpring.

"The Land Spaniel, which probably had its name from Spain, where it might have acquired the ſoftneſs of its hair, is well known at preſent. There are two varieties of this kind; namely, the Slater, uſed in hawking to ſpring the game; and the Setter, that crouches down when

when it ſcents the birds, till the net be drawn over them. I have read ſomewhere, that the famous poet, Lord Surry, was the firſt who taught dogs to ſet; it being an amuſement to this day only known in England.

"The Water Spaniel was another ſpecies uſed in fowling. This ſeems to be the moſt docile of all the dog kind; and this docility is particularly owing to his natural attachment to man. Many other kinds will not bear correction; but this patient creature, though very fierce to ſtrangers, ſeems unalterable in his affections; and blows and ill uſage ſeem only to encreaſe his regard.

"The Lap-dog, at the time of Doctor Caius, was of Malteſe breed; at preſent it comes from different countries; in general, the more aukward or extraordinary theſe are, the more they are prized.

"The Shepherd's dog has been already mentioned, and as for the maſtiff, he is too common to require a deſcription. Doctor Caius tells us, that three of theſe were reckoned a match for a bear, and four for a lion. However, we are told that three of them overcame a lion in the times of King James the Firſt; two of them being diſabled in the combat, the third obliged the lion to ſeek for ſafety by flight.

"As to the last division, namely, of the Wappe, the Turn-spit, and the Dancer, these were mongrels, of no certain shape, and made use of only to alarm the family, or, being taught a variety of tricks, were carried about as a show.

"With regard to those of later importation, the Bull-dog, as Mr. Buffon supposes, is a breed between the small Dane and the English mastiff. The large Dane is the tallest dog that is generally bred in England. It is somewhat between a mastiff and a grey-hound in shape, being more slender than the one, and much stronger than the other. They are chiefly used rather for shew than service, being neither good in the yard nor the field. The highest are most esteemed; and they generally cut off their ears to improve their figure, as some absurdly suppose. The harlequin is not much unlike the small Dane, being an useless animal, somewhat between an Italian greyhound and a Dutch mastiff. To these several others might be added, such as the pug dog, the black breed, and the pointer; but, in fact, the varieties are so numerous, as to fatigue even the most ardent curiosity."

Of these of the foreign kinds, I shall mention only three, which are more remarkable than any of the rest. The Lion Dog greatly re-

sembles that animal, in miniature, from whence it takes the name. The hair of the fore part of the body is extremely long, while that of the hinder part is as ſhort. The noſe is ſhort, the tail long, and tufted at the point, ſo that in all theſe particulars it is entirely like the lion. However, it differs very much from that fierce animal in nature and diſpoſition, being one of the ſmalleſt animals of its kind, extremely feeble, timid, and inactive. It comes originally from Malta, where it is found ſo ſmall, that women carry it about in their ſleeves.

That animal falſely called the Turkiſh Dog, differs greatly from all the reſt of the kind, in being entirely without hair. The ſkin, which is perfectly bare, is of a fleſh colour, with brown ſpots; and their figure at firſt view is rather diſguſting. Theſe ſeem to be of the ſmall Daniſh breed, brought into a warm climate, and there, by a ſucceſſion of generations, diveſted of their hair. For this reaſon, they are extremely chilly, and unable to endure the cold of our climate; and even in the midſt of ſummer they continue to ſhiver as we ſee men in a froſty day. Their ſpots are brown, as was ſaid, well marked, and eaſily diſtinguiſhable in ſummer, but in the cold of winter they entirely diſappear. They are called the Turkiſh breed,

although brought from a much warmer climate; for some of them have been known to come from the warmest parts of Africa and the East-Indies.

" The last variety, and the most wonderful of all that I shall mention, is the Great Irish Wolf-Dog; that may be considered as the first of the canine species. This animal, which is very rare even in the only country in the world where it is to be found, is rather kept for shew than use, there being neither wolves nor any other formidable beasts of prey in Ireland, that seem to require so powerful an antagonist. The wolf-dog is therefore bred up in the houses of the great, or such gentlemen as chuse to keep him as a curiosity, being neither good for hunting the hare, the fox, or the stag, and equally unserviceable as a house dog. Nevertheless, he is extremely beautiful and majestic to appearance, being the greatest of the dog kind to be seen in the world. The largest of those I have seen, and I have seen above a dozen, was about four feet high, or as tall as a calf of a year old. He was made extremely like a greyhound, but rather more robust, and inclining to the figure of the French matin, or the great Dane. His eye was mild, his colour white, and his nature seemed heavy and phlegmatic. This I ascribed to his having been bred up to a

size beyond his nature; for we ſee in man, and all other animals, that ſuch as are overgrown are neither ſo vigorous nor alert as thoſe of more moderate ſtature. The greateſt pains have been taken with theſe to enlarge the breed, both by food and matching. This end was effectually obtained, indeed; for the ſize was enormous; but, as it ſeemed to me, at the expence of the animal's fierceneſs, vigilance, and ſagacity. However, I was informed otherwiſe; the gentlemen who bred them aſſuring me that a maſtiff would be nothing when oppoſed to one of them, who generally ſeized their antagoniſt by the back: he added, that they would worry the ſtrongeſt bull-dogs, in a few minutes, to death. But this ſtrength did not appear either in their figure or their inclinations; they ſeemed rather more timid than the ordinary race of dogs; and their ſkin was much thinner, and conſequently leſs fitted for combat. Whether with theſe diſadvantages they were capable, as I was told, of ſingly coping with bears, others may determine; however, they have but few opportunities, in their own country, of exerting their ſtrength, as all wild carnivorous animals there are only of the vermin kind. Mr. Buffon ſeems to be of opinion that theſe are the true Moloſſian dogs of the ancients; he gives no reaſon

for this opinion; and I am apt to think it ill grounded. Not to trouble the reader with a tedious critical disquisition, which I have all along avoided, it will be sufficient to observe, that Nemesianus, in giving directions for the choice of a bitch, advises to have one of Spartan or Molossian breed; and among several other perfections, he says that the ears should be dependent, and fluctuate as she runs *. This, however, is by no means the case with the Irish wolf-dog, whose ears resemble those of the grey-hound, and are far from fluctuating with the animal's motions. But of whatever kinds these dogs may be, whether known among the ancients, or whether produced by a later mixture, they are now almost quite worn away, and are very rarely to be met with even in Ireland. If carried to other countries, they soon degenerate; and even at home, unless great care be taken, they quickly alter. They were once employed in clearing the island of wolves, which infested it in great plenty; but these being destroyed, the dogs also are wearing

* Elige tunc cursu facilem, facilemque recursu,
In Lacedæmonio natam seu rure Molosso—
Renibus ampla satis validis, diductaque coxas
Cuique nimis molles fluitent in cursibus aures.

NEMESIAN.

away, as if Nature meant to blot out the ſpecies, when they had no longer any ſervices to perform.

"In this manner ſeveral kinds of animals fade from the face of nature, that were once well known, but are now ſeen no longer. The enormous elk of the ſame kingdom, that, by its horns, could not have been leſs than eleven feet high, the wolf, and even the wolf-dog, are extinct, or only continued in ſuch a manner as to prove their former plenty and exiſtence. From hence it is probable that many of the nobler kinds of dogs, of which the ancients have given us ſuch beautiful deſcriptions, are now utterly unknown; ſince among the whole breed we have not one that will venture to engage the lion or the tiger in ſingle combat. The Engliſh bull-dog is perhaps the braveſt of the kind; but what are his moſt boaſted exploits to thoſe mentioned of the Epirotic dogs by Pliny, or the Indian dogs by Ælian? The latter gives us a deſcription of a combat between a dog and a lion, which I will take leave to tranſlate.

"When Alexander was purſuing his conqueſts in India, one of the principal men of that country was deſirous of ſhewing him the value of the dogs which his country produced.

Bringing his dog into the king's preſence, he ordered a ſtag to be let looſe before him, which the dog, deſpiſing as an unworthy enemy, remained quite regardleſs of the animal, and never once ſtirred from his place. His maſter then ordered a wild boar to be ſet out; but the dog thought even this a deſpicable foe, and remained calm and regardleſs as before. He was next tried with a bear; but ſtill deſpiſing his enemy, he only waited for an object more worthy of his courage and his force. At laſt, they brought forth a tremendous lion, and then the dog acknowledged his antagoniſt, and prepared for combat. He inſtantly diſcovered a degree of ungovernable ardour; and, flying at the lion with fury, ſeized him by the throat, and totally diſabled him from reſiſtance. Upon this, the Indian, who was deſirous of ſurpriſing the king, and knowing the conſtancy and bravery of his dog, ordered his tail to be cut off; which was eaſily performed, as the bold animal was employed in holding the lion. He next ordered one of his legs to be broken; which, however, did not in the leaſt abate the dog's ardour, but he ſtill kept his hold as before. Another leg was then broken; but the dog, as if he had ſuffered no pain, only preſſed the lion ſtill the more. In this cruel manner, all his legs were

cut off, without abating his courage; and at last, when even his head was separated from his body, the jaws seemed to keep their former hold. A sight so cruel did not fail to affect the king with very strong emotions, at once pitying the dog's fate, and admiring his fortitude. Upon which the Indian, seeing him thus moved, presented him with four dogs of the same kind, which in some measure alleviated his uneasiness for the loss of the former.

"The breed of dogs, however, in that country, is at present very much inferior to what this story seems to imply; since, in many places, instead of dogs, they have animals of the cat kind for hunting. In other places also, this admirable and faithful animal, instead of being applied to his natural uses, is only kept to be eaten. All over China there are dog-butchers, and shambles appointed for selling their flesh. In Canton, particularly, there is a street appointed for that purpose; and what is very extraordinary, wherever a dog-butcher appears, all the dogs of the place are sure to be in full cry after him; they know their enemy, and persecute him as far as they are able." Along the coasts of Guinea, their flesh is esteemed a delicacy by the Negroes; and they will give one of their cows for a dog. But, among this bar-

barous and brutal people, ſcarce any thing that has life comes amiſs; and they may well take up with a dog, ſince they conſider toads, lizards, and even the fleſh of the tiger itſelf, as a dainty. It may perhaps happen that the fleſh of this animal, which is ſo indifferent in the temperate climates, may aſſume a better quality in thoſe which are more warm; but it is more than probable that the diverſity is rather in man than in the fleſh of the dog; ſince in the cold countries the fleſh is eaten with equal appetite by the ſavages; and they have their dog-feaſts in the ſame manner as we have ours for veniſon.

In our climate, the wild animals that moſt approach the dog are the wolf and the fox; theſe in their internal conformation greatly reſemble each other, and yet in their natures are very diſtinct. The ancients aſſerted that they bred together,; and I am aſſured by credible perſons, that there are may animals in this country bred between a dog and a fox. However, all the endeavours of Mr. Buffon to make them engender, as he aſſures us, were ineffectual. For this purpoſe, he bred up a young wolf, taken in the woods, at two months old, with a matin dog of the ſame age. They were ſhut up together, without any other, in a large

yard, where they had a ſhelter for retiring. They neither of them knew any other individual of their kind, nor even any other man but he who had the charge of feeding them. In this manner they were kept for three years; ſtill with the ſame attention, and without conſtraining or tying them up. During the firſt year the young animals played with each other continually, and ſeemed to love each other very much. In the ſecond year they began to diſpute about their victuals, although they were given more than they could uſe. The quarrel always began on the wolf's ſide. They were brought their food, which conſiſted of fleſh and bones, upon a large wooden platter, which was laid on the ground. Juſt as it was put down, the wolf, inſtead of falling to the meat, began by driving off the dog; and took the platter in his teeth ſo expertly, that he let nothing of what it contained fall upon the ground; and in this manner carried it off; but as he could not entirely eſcape, he was frequently ſeen to run with it round the yard five or ſix times, ſtill carrying it in a poſition that none of its contents could fall. In this manner it would continue running, only now and then ſtopping to take breath, until the dog coming up, the wolf would leave the victuals to attack him. The dog, however,

was the ſtronger of the two; but as it was more gentle, in order to ſecure him from the wolf's attack, he had a collar put round his neck. In the third year, the quarrels of theſe ill-paired aſſociates were more vehement, and their combats more frequent; the wolf, therefore, had a collar put about his neck, as well as the dog, who began to be more fierce and unmerciful. During the two firſt years, neither ſeemed to teſtify the leaſt tendency towards engendering; and it was not till the end of the third, that the wolf, which was the female, ſhewed the natural deſire, but without abating either in its fierceneſs or obſtinacy. This appetite rather encreaſed than repreſſed their mutual animoſity; they became every day more intractable and ferocious, and nothing was heard between them but the ſounds of rage and reſentment. They both, in leſs than three weeks, became remarkably lean, without ever approaching each other, but to combat. At length, their quarrels became ſo deſperate, that the dog killed the wolf, who was become more weak and feeble; and he was ſoon after himſelf obliged to be killed, for, upon being ſet at liberty, he inſtantly flew upon every animal he met, fowls, dogs, and even men themſelves not eſcaping his ſavage fury.

The ſame experiment was tried upon foxes, taken young, but with no better ſucceſs; they were never found to engender with dogs; and our learned naturaliſt ſeems to be of opinion that their natures are too oppoſite ever to provoke mutual deſire. One thing, however, muſt be remarked, that the animals on which he tried his experiments, were rather too old when taken, and had partly acquired their natural ſavage appetites, before they came into his poſſeſſion. The wolf, as he acknowledges, was two or three months old before it was caught, and the foxes were taken in traps. It may, therefore, be eaſily ſuppoſed, that nothing could ever after thoroughly tame thoſe creatures, that had been ſuckled in the wild ſtate, and had caught all the habitudes of the dam. I have ſeen theſe animals, when taken earlier in the woods, become very tame; and, indeed, they rather were diſpleaſing by being too familiar than too ſhy. It were to be wiſhed that the experiment were tried upon ſuch as theſe; and it is more than probable that it would produce the deſired ſucceſs. Nevertheleſs, theſe experiments are ſufficient to prove that neither the wolf nor the fox are of the ſame nature with the dog, but each of a ſpecies perfectly diſtinct,

and their joint produce moſt probably unfruitful.

The dog, when firſt whelped, is not a completely finiſhed animal. In this kind, as in all the reſt which bring forth many at a time, the young are not ſo perfect as in thoſe which bring forth but one or two. They are always produced with the eyes cloſed, the lids being held together, not by ſticking, but by a kind of thin membrane, which is torn as ſoon as the upper eye-lid becomes ſtrong enough to raiſe it from the under. In general, their eyes are not opened till ten or twelve days old. During that time, the bones of the ſcull are not completed, the body is puffed up, the noſe is ſhort, and the whole form but ill ſketched out. In leſs than a month the puppy begins to uſe all its ſenſes; and, from thence, makes haſty advances to its perfection. At the fourth month the dog loſes ſome of his teeth, as in other animals, and theſe are renewed by ſuch as never fall. The number of theſe amount to forty-two, which is twelve more than is found in any of the cat kind, which are known never to have above thirty. The teeth of the dog being his great and only weapon, are formed in a manner much more ſerviceable than thoſe of the former; and there is ſcarce any quadru-

pede that has a greater facility in rending, cutting, or chewing its food. He cuts with his incifors, or fore teeth; he holds with his four great canine teeth, and he chews his meat with his grinders; thefe are fourteen in number, and fo placed that, when the jaws are fhut, there remains a diftance between them, fo that the dog, by opening his mouth ever fo wide, does not lofe the power of his jaws. But it is otherwife in the cat kind, whofe incifors or cutting teeth are very fmall, and whofe grinding teeth, when brought together, touch more clofely than thofe of the dog, and, confequently, have lefs power. Thus, for inftance, I can fqueeze any thing more forcibly between my thumb and fore-finger, where the diftance is greater, than between any other two fingers, whofe diftance from each other is lefs.

This animal is capable of reproducing at the age of twelve months*, goes nine weeks with young, and lives to about the age of twelve.

* To this defcription I will beg leave to add a few particulars from Linnæus, as I find them in the original. Vomitu a gramina purgatur: cacat fupra lapidem. Album græcum antifepticum fummum. Mingit ad latus (this, however, not till the animal is nine months old) cum hofpite fæpe centies. Odorat anum alterius. Procis rixantibus crudelis. Menftruans coit cum variis. Mordet illa illos. Cohæret copula junctus.

Few quadrupedes are leſs delicate in their food; and yet there are many kinds of birds which the dog will not venture to touch. He is even known, although in a ſavage ſtate, to abſtain from injuring ſome which one might ſuppoſe he had every reaſon to oppoſe. The dogs and the vultures which live wild about Grand Cairo in Egypt, (for the Mahometan law has expelled this uſeful animal from human ſociety) continue together in a very ſociable and friendly manner *. As they are both uſeful in devouring ſuch carcaſes as might otherwiſe putrefy, and thus infect the air, the inhabitants ſupply them with proviſions every day, in order to keep them near the city. Upon theſe occaſions, the quadrupedes and birds are often ſeen together tearing the ſame piece of fleſh, without the leaſt enmity; on the contrary, they are known to live together with a kind of affection, and bring up their young in the ſame neſt.

Although the dog is a voracious animal, yet he can bear hunger for a very long time. We have an inſtance, in the Memoirs of the Academy of Sciences, of this kind, in which a bitch that had been forgotten in a country-houſe, lived forty days, without any other nouriſhment

* Haſſelquiſt Her. Palæſtin, p. 232.

than the wool of a quilt which ſhe had torn in pieces. It ſhould ſeem that water is more neceſſary to the dog than food; he drinks often, though not abundantly; and it is commonly believed, that when abridged in water, he runs mad. This dreadful malady, the conſequences of which are ſo well known, is the greateſt inconvenience that reſults from the keeping this faithful domeſtic. But it is a diſorder by no means ſo frequent as the terrors of the timorous would ſuppoſe; the dog has been often accuſed of madneſs, without a fair trial; and ſome perſons have been ſuppoſed to receive their deaths from his bite, when either their own ill-grounded fears, or their natural diſorders, were the true cauſe.

THE WOLF.

THE dog and the wolf are ſo very much alike internally, that the moſt expert anatomiſts can ſcarce perceive the difference; and it may be aſſerted alſo, that, externally, ſome dogs more nearly reſemble the wolf than they do each other. It was this ſtrong ſimilitude that firſt led ſome naturaliſts to conſider them as the ſame animal, and to look upon the wolf as the dog in its ſtate of ſavage freedom: however,

this opinion is entertained no longer; the natural antipathy thoſe two animals bear to each other, the longer time which the wolf goes with young then the dog, the one going over an hundred days, and the other not quite ſixty; the longer period of life in the former than the latter, the wolf living twenty years, the dog not fifteen; all ſufficiently point out a diſtinction, and draw a line that muſt for ever keep them aſunder.

The wolf, from the tip of the noſe to the inſertion of the tail, is about three feet ſeven inches long, and about two feet five inches high; which ſhews him to be larger than our great breed of maſtiffs, which are ſeldom found to be above three feet by two. His colour is a mixture of black, brown, and grey, extremely rough and hard, but mixed towards the roots with a kind of aſh-coloured fur. In comparing him to any of our well known breed of dogs, the great Dane, or mongrel greyhound, for inſtance, he will appear to have the legs ſhorter, the head larger, the muzzle thicker, the eyes ſmaller and more ſeparated from each other, and the ears ſhorter and ſtraiter. He appears, in every reſpect, ſtronger than the dog; and the length of his hair contributes ſtill more to his robuſt appearance. The feature which prin-

cipally diſtinguiſhes the viſage of the wolf from that of the dog, is the eye, which opens ſlantingly upwards, in the ſame direction with the noſe; whereas, in the dog, it opens more at right angles with the noſe, as in man. The tail alſo, in this animal, is long and buſhy; and he carries it rather more between his hind legs than the dog is ſeen to do. The colour of the eye-balls in the wolf are of a fiery green, and gives his viſage a fierce and formidable air, which his natural diſpoſition does by no means contradict *.

The wolf is one of thoſe animals whoſe appetite for animal food is the moſt vehement; and whoſe means of ſatisfying this appetite are the moſt various. Nature has furniſhed him with ſtrength, cunning, agility, and all thoſe requiſites which fit an animal for purſuing, overtaking, and conquering its prey; and yet, with all theſe, the wolf moſt frequently dies of hunger, for he is the declared enemy of man. Being long proſcribed, and a reward offered for his head, he is obliged to fly from human habitations, and to live in the foreſt, where the few wild animals to be found there, eſcape him

* The reſt of this hiſtory of the wolf is taken from Mr. Buffon, and I look upon it as a complete model for natural hiſtory. If I add or differ, I mark it as uſual.

either by their ſwiftneſs or their art; or are ſupplied in too ſmall a proportion to ſatisfy his rapacity. He is naturally dull and cowardly; but frequently diſappointed, and as often reduced to the verge of famine, he becomes ingenious from want, and courageous from neceſſity. When preſſed with hunger, he braves danger, and comes to attack thoſe animals which are under the protection of man, particularly ſuch as he can readily carry away, lambs, ſheep, or even dogs themſelves, for all animal food becomes then equally agreeable. When this excurſion has ſucceeded, he often returns to the charge, until having been wounded or hard preſſed by the dogs, or the ſhepherds, he hides himſelf by day in the thickeſt coverts, and only ventures out at night; he then ſallies forth over the country, keeps peering round the villages, carries off ſuch animals as are not under protection, attacks the ſheep-folds, ſcratches up and undermines the threſholds of doors where they are houſed, enters furious, and deſtroys all before he begins to fix upon and carry off his prey. When theſe ſallies do not ſucceed, he then returns to the thickeſt part of the foreſt, content to purſue thoſe ſmaller animals, which, even when taken, afford him but a ſcanty ſupply.

He there goes regularly to work, follows by the ſcent, opens to the view ſtill keeps following, hopeleſs himſelf of overtaking the prey, but expecting that the other wolf will come in to his aſſiſtance, and then content to ſhare the ſpoil. At laſt, when his neceſſities are very urgent, he boldly faces certain deſtruction; he attacks women and children, and ſometimes ventures even to fall upon men, becomes furious by his continual agitations, and ends his life in madneſs.

The wolf, as well externally as internally, ſo nearly reſembles the dog, that he ſeems modelled upon the ſame plan; and yet he only offers the reverſe of the medal. If his form be like, his nature is ſo different, that he only preſerves the ill qualities of the dog, without any of his good ones. Indeed, they are ſo different in their diſpoſitions, that no two animals can have a more perfect antipathy to each other. A young dog ſhudders at the ſight of a wolf; he even ſhuns his ſcent, which, though unknown, is ſo repugnant to his nature, that he comes trembling to take protection near his maſter. A dog who is ſtronger, and who knows his ſtrength, briſtles up at the ſight, teſtifies his animoſity, attacks him with courage, endeavours to put him to flight, and does all in his power

to rid himſelf of a preſence that is hateful to him. They never meet without either flying or fighting; figthing for life and death, and without mercy or e[illegible]de. If the wolf is the ſtronger, he tears and devours his prey; the dog, on the contrary, is more generous, and contents himſelf with his victory; he does not ſeem to think that *the body of a dead enemy ſmells well*; he leaves him where he falls, to ſerve as food for birds of prey, or for other wolves, ſince they devour each other; and when one wolf happens to be deſperately wounded, the reſt track him by his blood, and are ſure to ſhew him no mercy.

The dog, even in his ſavage ſtate, is not cruel; he is eaſily tamed, and continues firmly attached to his maſter. The wolf, when taken young, becomes tame, but never has an attachment; nature is ſtronger in him than education; he reſumes, with age, his natural diſpoſitions, and returns, as ſoon as he can, to the woods from whence he was taken. Dogs, even of the dulleſt kinds, ſeek the company of other animals; they are naturally diſpoſed to follow and accompany other creatures beſide themſelves; and even by inſtinct, without any education, take to the care of flocks and herds. The wolf, on the contrary, is the enemy of all

ſociety; he does not even keep much company with thoſe of his kind. When they are ſeen in packs together, it is not be conſidered as a peaceful ſociety, but a combination for war: they teſtify their hoſtile intentions by their loud howlings, and by their fierceneſs diſcover a project for attacking ſome great animal, ſuch as a ſtag or a bull, or to deſtroy ſome more redoubtable watch-dog. The inſtant their military expedition is completed, their ſociety is at an end; they then part, and each returns in ſilence to his ſolitary retreat. There is not even any ſtrong attachments between the male and female; they ſeek each other only once a year, and remain but a few days together: they always couple in winter; at which time ſeveral males are ſeen following one female, and this aſſociation is ſtill more bloody than the former: they diſpute moſt cruelly, growl, bark, fight, and tear each other; and it ſometimes happens that the majority kill the wolf which has been chiefly preferred by the female. It is uſual for the ſhe wolf to fly from them all with him ſhe has choſen; and watches this opportunity when the reſt are aſleep.

The ſeaſon for coupling does not continue above twelve or fifteen days; and uſually commences among the oldeſt, thoſe which are

young being later in their desires. The males have no fixed time for engendering; they pass from one female to the other, beginning at the end of December, and ending at the latter end of February. The time of pregnancy is about three months and an half; and the young wolves are found from the latter end of April to the beginning of July. The long continuance of the wolf's pregnancy is sufficient to make a distinction between it and the dog; did not also the fiery fierceness of the eyes, the howl instead of barking, and the greater duration of its life, leave no doubt of its being an animal of its own particular species. In other respects, however, they are entirely alike; the wolf couples exactly like the dog, the parts are formed in the same manner, and their separation hindered by the same cause. When the she-wolves are near their time of bringing forth, they seek some very tufted spot, in the thickest part of the forest; in the middle of this they make a small opening, cutting away the thorns and briars with their teeth, and afterwards carry thither a great quantity of moss, which they form into a bed for their young ones. They generally bring forth five or six, and sometimes even to nine at a litter. The cubs are brought forth, like those of the bitch, with the eyes closed;

the dam ſuckles them for ſome weeks, and teaches them betimes to eat fleſh, which ſhe prepares for them, by chewing it firſt herſelf. Some time after ſhe brings them ſtronger food, hares, partridges, and birds yet alive. The young wolves begin by playing with them, and end by killing them. The dam then ſtrips them of their feathers, tears them in pieces, and gives to each of them a ſhare. They do not leave the den where they have been littered, till they are ſix weeks, or two months old. They then follow the old one, who leads them to drink to the trunk of ſome old tree where the water has ſettled, or at ſome pool in the neighbourhood. If ſhe apprehends any danger, ſhe inſtantly conceals them in the firſt convenient place, or brings them back to their former retreat. In this manner they follow her for ſome months; when they are attacked, ſhe defends them with all her ſtrength, and more than uſual ferocity. Although, at other times, more timorous than the male, at that ſeaſon ſhe becomes bold and fearleſs; willing perhaps to teach the young ones future courage by her own example. It is not till they are about ten or twelve months old, and until they have ſhed their firſt teeth, and completed the new, that ſhe thinks them in a capacity to ſhift for them-

ſelves. Then when they have acquired arms from nature, and have learned induſtry and courage from her example, ſhe declines all future care of them, being again engaged in bringing up a new progeny.

The males and females are in a capacity to engender when two years old. It is probable that the females of this ſpecies, as well as of moſt others, are ſooner completed than the males; but this is certain, that they never deſire to copulate until their ſecond winter; from whence we may ſuppoſe that they live fifteen or twenty years; for allowing three years for their complete growth, this multiplied by ſeven gives them a life of twenty-one; moſt animals, as has been obſerved, living about ſeven times the number of years which they take to come to perfection. Of this, however, there is as yet no certainty, no more than of what huntſmen aſſert, that in all the litters there are more males than females. From them alſo we learn that there are ſome of the males who attach themſelves to the female, who accompany her during her geſtation, until the time of bringing forth, when ſhe hides the place of her retreat from the male, leſt he ſhould devour her cubs. But after this, when they are brought forth, that he then takes the ſame care of them as the

female, carries them proviſions, and, if the dam ſhould happen to be killed, rears them up in her ſtead.

The wolf grows grey as he grows old, and his teeth wear, like thoſe of moſt other animals, by uſing. He ſleeps when his belly is full, or when he is fatigued, rather by day than night; and always, like the dog, is very eaſily waked. He drinks frequently; and in times of drought, when there is no water to be found in the trunks of old trees, or in the pools about the foreſt, he comes often, in the day, down to the brooks, or the lakes in the plain. Although very voracious, he ſupports hunger for a long time, and often lives four or five days without food, provided he be ſupplied with water.

The wolf has great ſtrength, particularly in his fore-parts, in the muſcles of his neck and his jaws. He carries off a ſheep in his mouth without letting it touch the ground, and runs with it much ſwifter than the ſhepherds who purſue him; ſo that nothing but the dogs can overtake, and oblige him to quit his prey. He bites cruelly, and always with greater vehemence in proportion as he is leaſt reſiſted; for he uſes precautions with ſuch animals as attempt to ſtand upon the defenſive. He is ever cow-

ardly, and never fights but when under a neceſſity of ſatisfying hunger, or making good his retreat. When he is wounded by a bullet, he is heard to cry out; and yet, when ſurrounded by the peaſants, and attacked with clubs, he never howls as the dog under correction, but defends himſelf in ſilence, and dies as hard as he lived.

His nature is, in fact, more ſavage than that of the dog; he has leſs ſenſibility and greater ſtrength. He travels, runs, and keeps plundering for whole days and nights together. He is in a manner indefatigable; and perhaps of all animals he is the moſt difficult to be hunted down. The dog is good-natured and courageous; the wolf, though ſavage is ever fearful. If he happens to be caught in a pit-fall, he is for ſome time ſo frightened and aſtoniſhed, that he may be killed without offering to reſiſt, or taken alive without much danger. At that inſtant, one may clap a collar round his neck, muzzle him, and drag him along, without his ever giving the leaſt ſigns of anger or reſentment. At all other times he has his ſenſes in great perfection; his eye, his ear, and particularly his ſenſe of ſmelling, which is even ſuperior to the two former. He ſmells a carcaſe at more than a league's diſtance; he alſo per-

ceives living animals a great way off, and follows them a long time upon the ſcent. Whenever he leaves the wood, he always takes care to go out againſt the wind. When juſt come to its extremity, he ſtops to examine, by his ſmell, on all ſides, the emanations that may come either from his enemy or his prey, which he very nicely diſtinguiſhes. He prefers thoſe animals which he kills himſelf to thoſe he finds dead; and yet he does not diſdain theſe when no better is to be had. He is particularly fond of human fleſh; and perhaps, if he were ſufficiently powerful, he would eat no other. Wolves have been ſeen following armies, and arriving in numbers upon the field of battle, where they devoured ſuch dead bodies as were left upon the field, or but negligently interred. Theſe, when once accuſtomed to human fleſh, ever after ſeek particularly to attack mankind, and chuſe to fall upon the ſhepherd rather than his flock. We have had a late inſtance of two or three of theſe keeping a whole province, for more than a month, in a continual alarm.

It ſometimes happens that a whole country is called out to extirpate theſe moſt dangerous invaders. The hunting the wolf is a favourite diverſion among the great of ſome countries; and it muſt be confeſſed it ſeems to be the moſt

useful of any. These animals are diſtinguiſhed by the huntſmen into the *young wolf*, the *old wolf*, and the *great wolf*. They are known by the prints of their feet; the older the wolf, the larger the track he leaves. That of the female is narrower and longer than that of the male. It is neceſſary to have a very good ſtarter to put up the wolf; and it is even convenient to uſe every art to encourage him in his purſuit; for all dogs have a natural repugnance againſt this animal, and are but cold in their endeavours. When the wolf is once put up, it is then proper to have greyhounds to let fly at him, in leaſhes, one after the other. The firſt leaſh is ſent after him in the beginning, ſeconded by a man on horſeback; the ſecond are let looſe about half a mile farther, and the third when the reſt of the dogs come up with, and begin to bait him. He for a long time keeps them off, ſtands his ground, threatens them on all ſides, and often gets away; but uſually the hunters arriving come in aid of the dogs, and help to diſpatch him with their cutlaſſes. When the animal is killed, the dogs teſtify no appetite to enjoy their victory, but leave him where he falls, a frightful ſpectacle, and even in death hideous.

The wolf is ſometimes alſo hunted with harriers; but as he always goes ſtraight forward,

and often holds his ſpeed for a whole day together, this kind of chace is tedious and diſagreeable, at leaſt if the harriers are not aſſiſted by greyhounds, who may harraſs him at every view. Several other arts have been alſo uſed to take and deſtroy this noxious animal. He is ſurrounded and wounded by men and large houſe-dogs; he is ſecured in traps; he is poiſoned by carcaſes prepared and placed for that purpoſe, and is caught in pit-falls. "Geſner tells us of a friar, a woman, and a wolf, being taken in one of theſe, all in the ſame night. The woman loſt her ſenſes with the fright, the friar his reputation, and the wolf his life." All theſe diſaſters, however, do not prevent this animal's multiplying in great numbers, particularly in countries where the woods are plenty. France, Spain, and Italy, are greatly infeſted with them; but England, Ireland, and Scotland, are happily ſet free.

King Edgar is ſaid to be the firſt who attempted to rid this kingdom of ſuch diſagreeable inmates, by commuting the puniſhment for certain crimes into the acceptance of a number of wolf's tongues from each criminal*. However, ſome centuries after, theſe animals were again encreaſed to ſuch a degree, as to become

* Britiſh Zoology, p. 62.

the object of royal attention; accordingly Edward the First issued out his mandate to one Peter Corbet to superintend and assist in the destruction of them. They are said to have infested Ireland long after they were extirpated in England; however, the oldest men in that country remember nothing of these animals; and it is probable that there have been none there for more than a century past. Scotland also is totally free.

The colour of this animal differs according the different climates where it is bred, and often changes even in the same country. Beside the common wolves, which are found in France and Germany, there are others with thicker hair, inclining to yellow. These are more savage and less noxious than the former, neither approaching the flocks nor habitations, and living rather by the chace than rapine. In the northern climates they are found some quite black, and some white all over. The former are larger and stronger than those of any other kinds.

The species is very much diffused in every part of the world, being found in Asia, Africa, and in America, as well as Europe. The wolves of Senegal resemble those of France, except that they are larger and much fiercer than those

of

of Europe. Thoſe of Egypt are ſmaller than thoſe of Greece. In the Eaſt, the wolf is trained up for a ſhew, being taught to dance and play tricks; and one of theſe thus educated often ſells for four or five hundred crowns. "It is ſaid that in Lapland the wolf will never attack a rein-deer that is ſeen haltered; for this wary animal, being well acquainted with the nature of a trap, ſuſpects one wherever it perceives a rope. However, when he ſees the deer entirely at liberty, he ſeldom fails to deſtroy it.

"The wolf of North-America is blacker and much leſs than thoſe in other parts of the world, and approaches nearer in form to the dog than thoſe of the ordinary kind *. In fact, they were made uſe of as ſuch by the ſavages, till the Europeans introduced others; and even now, on the remoter ſhores, or the more inland parts of the country, the ſavages ſtill make uſe of theſe animals in hunting. They are very tame and gentle; and thoſe of this kind that are wild are neither ſo large nor ſo fierce as an European wolf, nor do they ever attack mankind. They go together in large packs by night to hunt the deer, which they do as well as any dogs in England; and it is confidently aſſerted that one

* Brookes's Natural Hiſtory, vol. i. p. 198.

of them is ſufficient to run down a deer *. Whenever they are ſeen along the banks of thoſe rivers near which the wandering natives pitch their huts, it is taken for granted that the biſon or the deer are not far off; and the ſavages affirm that the wolves come with the tidings, in order to have the garbage, after the animal has been killed by the hunters. Cateſby adds a circumſtance relative to theſe animals, which, if true, invalidates many of Mr. Buffon's obſervations in the foregoing hiſtory. He aſſerts, that theſe being the only dogs uſed by the Americans, before the arrival of the Europeans among them, they have ſince engendered together, and that their breed has become prolific; which proves the dog and the wolf to be of the ſame ſpecies. It were to be wiſhed that this fact were better aſcertained; we ſhould then know to a certainty in what a degree the dog and wolf reſemble each other, as well in nature as in conformation; we might then, perhaps, be enabled to improve the breed of our dogs, by bringing them back to their native forms and inſtincts; we might, by croſſing the ſtrain, reſtore that race of thoſe bold animals, which the ancients aſſure us were more than a match for the lion."

* Dictionaire Raiſonée. Loup.

De Seve del. I.^s Taylor sculp

The Wolf.

However this animal may be useful in North-America, the wolf of Europe is a very noxious animal, and scarce any thing belonging to him is good, except his skin. Of this the furriers make a covering that is warm and durable, though coarse and unsightly. His flesh is very indifferent, and seems to be disliked by all other animals, no other creature being known to eat the wolf's flesh, except the wolf himself. He breathes a most fœtid vapour from his jaws, as his food is indiscriminate, often putrid, and seldom cleanly. In short, every way offensive, a savage aspect, a frightful howl, an insupportable odour, a perverse disposition, fierce habits, he is hateful while living, and useless when dead.

THE FOX.

THE Fox very exactly resembles the wolf and the dog internally; and, although he differs greatly from both in size and carriage, yet when we come to examine his shapes minutely, there will appear to be very little difference in the description. Were, for instance, a painter to draw from a natural historian's exactest description the figure of a dog, a wolf, and a fox, without having ever seen either, he would be very apt to confound all these animals together; or rather he would be unable to catch those pe-

culiar out-lines that no defcription can fupply. Words will never give any perfon an exact idea of forms any way irregular; for although they be extremely juft and precife, yet the numberlefs difcriminations to be attended to will confound each other, and we fhall no more conceive the precife form, than we fhould be able to tell when one pebble more was added or taken away from a thoufand. To conceive, therefore, how the fox differs in form from the wolf or the dog, it is neceffary to fee all three, or at leaft to fupply the defects of defcription, by examining the difference in a print.

The fox is of a flenderer make than the wolf, and not near fo large; for as the former is above three feet and a half long, fo the other is not above two feet three inches. The tail of the fox alfo is longer in proportion, and more bufhy; its nofe is fmaller, and approaching more nearly to that of the greyhound, and its hair fofter. On the other hand, it differs from the dog in having its eyes obliquely fituated, like thofe of the wolf; its ears are directed alfo in the fame manner as thofe of the wolf, and its head is equally large in proportion to its fize. It differs ftill more from the dog in its ftrong offenfive fmell, which is peculiar to the fpecies, and often the caufe of their death. However, fome are ignorantly of opinion that it will keep off infectious

diſeaſes, and they preſerve this animal near their habitations for that very purpoſe.

The fox has ſince the beginning been famous for his cunning and his arts, and he partly merits his reputation *. Without attempting to oppoſe either the dogs or the ſhepherds, without attacking the flock, or alarming the village, he finds an eaſier way to ſubſiſt, and gains by his addreſs what is denied to his ſtrength or courage. Patient and prudent, he waits the opportunity of depredation, and varies his conduct with every occaſion. His whole ſtudy is his preſervation; although nearly as indefatigable, and actually more ſwift than the wolf, he does not entirely truſt to either, but makes himſelf an aſylum, to which he retires in caſe of neceſſity; where he ſhelters himſelf from danger, and brings up his young.

As among men, thoſe who lead a domeſtic life are more civilized, and more endued with wiſdom, than thoſe who wander from place to place, ſo, in the inferior ranks of animated nature, the taking poſſeſſion of an home ſuppoſes a degree of inſtinct which others are without †. The choice of the ſituation for this domicil, the art of making it convenient, of hiding its entrance, and ſecuring it againſt more powerful

* Buffon. Renard. † Ibid.

animals, are all so many marks of superior skill and industry. The fox is furnished with both, and turns them to his advantage. He generally keeps his kennel at the edge of the wood, and yet within an easy journey of some neighbouring cottage. From thence he listens to the crowing of the cock, and the cackling of the domestic fowls. He scents them at a distance; he seizes his opportunity, conceals his approaches, creeps slyly along, makes the attack, and seldom returns without his booty. If he be able to get into the yard, he begins by levelling all the poultry without remorse, and carrying off a part of the spoil, hides it at some convenient distance, and again returns to the charge. Taking off another fowl in the same manner, he hides that also, but not in the same place; and this he practises for several times together, until the approach of day, or the noise of the domestics, give him warning to retire. The same arts are practised when he finds birds entangled in springes laid for them by the fowler; the fox takes care to be beforehand, very expertly takes the bird out of the snare, hides it for three or four days, and knows very exactly when and where to return to avail himself of hidden treasure. He is equally alert in seizing the young hares and rabbits, before they

have ſtrength enough to eſcape him, and when the old ones are wounded and fatigued, he is ſure to come upon them in their moments of diſtreſs, and to ſhew them no mercy. In the ſame manner he finds out birds neſts, ſeizes the partridge and the quail while ſitting, and deſtroys a large quantity of game. The wolf is moſt hurtful to the peaſant, but the fox to the gentleman. In ſhort, nothing that can be eaten ſeems to come amiſs; rats, mice, ſerpents, toads, and lizards. He will, when urged by hunger, eat vegetables and inſects; and thoſe that live near the ſea-coaſts will, for want of other food, eat crabs, ſhrimps, and ſhell-fiſh. The hedge-hog in vain rolls itſelf up into a ball to oppoſe him; this determined glutton teizes it until it is obliged to appear uncovered, and then he devours it. The waſp and the wild bee are attacked with equal ſucceſs. Although at firſt they fly out upon their invader, and actually oblige him to retire, this is but for a few minutes, until he has rolled himſelf upon the ground, and thus cruſhed ſuch as ſtick to his ſkin; he then returns to the charge, and at laſt, by perſeverance, obliges them to abandon their combs; which he greedily devours, both wax and honey.

The chace of the fox requires leſs preparation

than that of the wolf, and it is alſo more pleaſant and amuſing. As dogs have a natural repugnance to purſue the wolf, ſo they are equally alert in following the fox; which chace they prefer even to that of the hare or the buck. The huntſmen, as upon other occaſions, have their cant terms for every part of this chace. The fox the firſt year is called a *cub*; the ſecond, a *fox*; and the third, an *old fox*; his tail is called the *bruſh* or *drag*, and his excrement the *billiting*. He is uſually purſued by a large kind of harrier or hound, aſſiſted by tarriers, or a ſmaller breed, that follow him into his kennel, and attack him there. The inſtant he perceives himſelf purſued, he makes to his kennel, and takes refuge at the bottom of it, where for a while he loſes the cry of his enemies; but the whole pack coming to the mouth, redouble their vehemence and rage, and the little tarrier boldly ventures in. It often happens that the kennel is made under a rock, or among the roots of old trees; and in ſuch caſes the fox cannot be dug out, nor is the tarrier able to contend with him at the bottom of his hole. By this contrivance he continues ſecure; but when he can be dug out, the uſual way is to carry him in a bag to ſome open country, and there ſet him looſe before the hounds. The hounds and the

men follow, barking and ſhouting wherever he runs; and the body being ſtrongly employed, the mind has not time to make any reflection on the futility of the purſuit. What adds to this entertainment is the ſtrong ſcent which the fox leaves, that always keeps up a full cry; although as his ſcent is ſtronger than that of the hare, it is much ſooner evaporated. He ſhifts to eſcape when all retreat is cut off to his kennel are various and ſurpriſing. He always chuſes the moſt woody country, and takes thoſe paths that are moſt embarraſſed with thorns and briars. He does not double, nor uſe the unavailing ſhifts of the hare; but flies in a direct line before the hounds, though at no very great diſtance; manages his ſtrength; takes to the low and plaſhy grounds, where the ſcent will be leſs apt to lie; and at laſt, when overtaken, he defends himſelf with deſperate obſtinacy, and fights in ſilence to the very laſt gaſp.

The fox, though reſembling the dog in many reſpects, is nevertheleſs very diſtinct in his nature, refuſing to engender with it; and though not teſtifying the antipathy of the wolf, yet diſcovering nothing more than indifference. This animal alſo brings forth fewer at a time than the dog, and that but once a year. Its

litter is generally from four to five, and ſeldom leſs than three. The female goes with young about ſix weeks, and ſeldom ſtirs out while pregnant, but makes a bed for her young, and takes every precaution to prepare for their production. When ſhe finds the place of their retreat diſcovered, and that her young have been diſturbed during her abſence, ſhe removes them one after the other in her mouth, and endeavours to find them out a place of better ſecurity. A remarkable inſtance of this animal's parental affection happened while I was writing this hiſtory, in the county of Eſſex. A ſhe-fox that had, as it ſhould ſeem, but one cub, was unkennelled by a gentleman's hounds, near Chelmsford, and hotly purſued. In ſuch a caſe, when her own life was in imminent peril, one would think it was not a time to conſult the ſafety of her young; however, the poor animal, braving every danger, rather than leave her cub behind to be worried by the dogs, took it up in her mouth, and ran with it in this manner for ſome miles. At laſt, taking her way through a farmer's yard, ſhe was aſſaulted by a maſtiff, and at laſt obliged to drop her cub, which was taken up by the farmer. I was not diſpleaſed to hear that this faithful creature eſcaped the purſuit, and at laſt got off in ſafety.

The cubs of the fox are born blind, like those of the dog; they are eighteen months or two years in coming to perfection, and live about twelve or fourteen years.

As the fox makes war upon all animals, so all others seem to make war upon him. The dog hunts him with peculiar acrimony; the wolf is still a greater and more necessitous enemy, who pursues him to his very retreat. Some pretend to say that, to keep the wolf away, the fox lays at the mouth of its kennel a certain herb, to which the wolf has a particular aversion. This, which no doubt is a fable, at least shews that these two animals are as much enemies to each other as to all the rest of animated nature. But the fox is not hunted by quadrupedes alone; for the birds, who know him for their mortal enemy, attend him in his excursions, and give each other warning of their approaching danger. The daw, the magpye, and the black bird conduct him along, perching on the hedges as he creeps below, and, with their cries and notes of hostility, apprize all other animals to beware; a caution which they perfectly understand, and put into practice. The hunters themselves are often informed by the birds of the place of his retreat, and set the dogs into those thickets where they see them

particularly noisy and querulous. So that it is the fate of this petty plunderer to be detested by every rank of animals; all the weaker classes shun, and all the stronger pursue him.

The fox, of all wild animals, is most subject to the influence of climate; and there are found as many varieties in this kind almost as in any of the domestic animals *. The generality of foxes, as is well known, are red; but there are some, though not in England, of a greyish cast; and Mr. Buffon asserts that the tip of the tail in all foxes is white; which, however, is not so in those of this country. There are only three varieties of this animal in Great Britain, and these are rather established upon a difference of size than of colour or form. The greyhound fox is the largest, tallest, and boldest; and will attack a grown sheep. The mastiff fox is less, but more strongly built. The cur fox is the least and most common; he lurks about hedges and out-houses, and is the most pernicious of the three to the peasant and the farmer.

In the colder countries round the pole, the foxes are of all colours; black, blue, grey, iron-grey, silver-grey, white, white with red legs, white with black heads, white with the tip of the tail black, red with the throat and

* Buffon, Renard.

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The Fox.

belly entirely white, and lastly with a ſtripe of black running along the back, and another croſſing it at the ſhoulders *. The common kind, however, is more univerſally diffuſed than any of the former, being found in Europe, in the temperate climates of Aſia, and alſo in America; they are very rare in Africa, and in the countries lying under the torrid zone. Thoſe travellers who talk of having ſeen them at Calicut, and other parts of Southern India, have miſtaken the jackall for the fox. The fur of the white fox is held in no great eſtimation, becauſe the hair falls off; the blue fox ſkins are alſo bought up with great avidity, from their ſcarceneſs; but the black fox-ſkin is of all others the moſt eſteemed, a ſingle ſkin often ſelling for forty or fifty crowns. The hair of theſe is ſo diſpoſed, that it is impoſſible to tell which way the grain lies; for if we hold the ſkin by the head the hair hangs to the tail, and if we hold it by the tail it hangs down equally ſmooth and even to the head. Theſe are often made into men's muffs, and are at once very beautiful and warm. In our temperate climate, however, furs are of very little ſervice, there being ſcarce any weather ſo ſevere in England from which our ordinary cloaths may not very well defend us.

* Buffon, Renard.

THE JACKALL.

THE Jackall is one of the commoneſt wild animals in the Eaſt; and yet there is ſcarce any leſs known in Europe, or more confuſedly deſcribed by natural hiſtorians. In general, we are aſſured that it reſembles the fox in figure and diſpoſition, but we are ſtill ignorant of thoſe nice diſtinctions by which it is known to be of a different ſpecies. It is ſaid to be of the ſize of a middling dog, reſembling the fox in the hinder parts, particularly the tail; and the wolf in the fore-parts, eſpecially the noſe. Its legs are ſhorter than thoſe of the fox, and its colour is of a bright yellow, or ſorrel, as we expreſs it in horſes. This is the reaſon it has been called in Latin the Golden Wolf; a name, however, which is entirely unknown in the countries where they are moſt common.

The ſpecies of the jackall is diffuſed all over Aſia, and is found alſo in moſt parts of Africa, ſeeming to take up the place of the wolf, which in thoſe countries is not ſo common. There ſeems to be many varieties among them; thoſe of the warmeſt climates appear to be the largeſt, and their colour is rather of a reddiſh brown than of that beautiful yellow by which the ſmaller jackall are chiefly diſtinguiſhed.

Although the ſpecies of the wolf approaches very near to that of the dog, yet the jackall ſeems to be placed between them; to the ſavage fierceneſs of the wolf it adds the impudent familiarity of the dog*. Its cry is an howl, mixed with barking, and a lamentation reſembling that of human diſtreſs. It is more noiſy in its purſuits even than the dog, and more voracious than the wolf. The jackall never goes alone, but always in a pack of forty or fifty together. Theſe unite regularly every day, to form a combination againſt the reſt of the foreſt. Nothing then can eſcape them; they are content to take up with the ſmalleſt animals; and yet, when thus united, they have courage to face the largeſt. They ſeem very little afraid of mankind; but purſue their game to the very doors, without teſtifying either attachment or apprehenſion. They enter inſolently into the ſheep-folds, the yards, and the ſtables, and, when they can find nothing elſe, devour the leather harneſs, boots, and ſhoes, and run off with what they had not time to ſwallow.

They not only attack the living but the dead. They ſcratch up with their feet the new-made graves, and devour the corpſe how putrid ſoever.

* Buffon, vol. xxvii. p. 52.

In thoſe countries therefore where they abound, they are obliged to beat the earth over the grave, and to mix it with thorns, to prevent the jackalls from ſcraping it away. They always aſſiſt each other as well in this employment of exhumation, as in that of the chace. While they are at this dreary work, they exhort each other by a moſt mournful cry, reſembling that of children under chaſtiſement; and when they have thus dug up the body, they ſhare it amicably between them. Theſe, like all other ſavage animals, when they have once taſted of human fleſh, can never after refrain from purſuing mankind. They watch the burying-grounds, follow armies, and keep in the rear of caravans. They may be conſidered as the vulture of the quadrupede kind; every thing that once had animal life, ſeems equally agreeable to them; the moſt putrid ſubſtances are greedily devoured; dried leather, and any thing that has been rubbed with greaſe, how inſipid ſoever in itſelf, is ſufficient to make the whole go down.

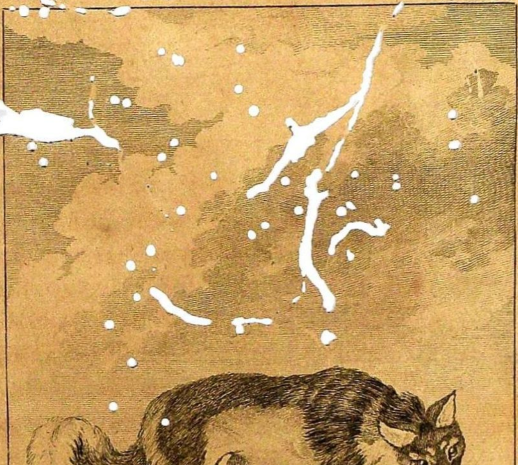
They hide themſelves in holes by day, and ſeldom appear abroad till night-fall, when the jackall that has firſt hit upon the ſcent of ſome larger beaſt gives notice to the reſt by an howl, which

which it repeats as it runs; while all the reſt, that are within hearing, pack in to its aſſiſtance. The gazelle, or whatever other beaſt it may be, finding itſelf purſued, makes off towards the houſes and the towns; hoping, by that means, to deter its purſuers from following: but hunger gives the jackall the ſame degree of boldneſs that fear gives the gazelle, and it purſues even to the verge of the city, and often along the ſtreets. The gazelle, however, by this means, moſt frequently eſcapes; for the inhabitants ſallying out, often diſturb the jackall in the chace; and as it hunts by the ſcent, when once driven off, it never recovers it again. In this manner we ſee how experience prompts the gazelle, which is naturally a very timid animal, and particularly fearful of man, to take refuge near him, conſidering him as the leaſt dangerous enemy, and often eſcaping by his aſſiſtance.

But man is not the only intruder upon the jackall's induſtry and purſuits. The lion, the tiger, and the panther, whoſe appetites are ſuperior to their ſwiftneſs, attend to its call, and follow in ſilence at ſome diſtance behind*. The jackall purſues the whole night with unceaſing aſſiduity, keeping up the cry, and with

* Linnæi Syſtema, p. 60.

great perſeverance at laſt tires down its prey; but juſt at the moment it ſuppoſes itſelf going to ſhare the fruits of its labour, the lion or the leopard comes in, ſatiates himſelf upon the ſpoil, and his poor provider muſt be content with the bare carcaſs he leaves behind. It is not to be wondered at, therefore, if the jackall be voracious, ſince it ſo ſeldom has a ſufficiency; nor that it feeds on putrid ſubſtances, ſince it is not permitted to feaſt on what it has newly killed. Beſide theſe enemies, the jackall has ſtill another to cope with, for between him and the dog there is an irreconcileable antipathy, and they never part without an engagement. The Indian peaſants often chace them as we do foxes; and have learned, by experience, when they have got a lion or a tiger in their rear. Upon ſuch occaſions they keep their dogs cloſe, as they would be no match for ſuch formidable animals, and endeavour to put them to flight with their cries. When the lion is diſmiſſed, they more eaſily cope with the jackall, who is as ſtupid as it is impudent, and ſeems much better fitted for purſuing than retreating. It ſometimes happens that one of them ſteals ſilently into an out-houſe, to ſeize the poultry, or devour the furniture, but hearing others in full cry at a diſtance,



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The Isatis.

without thought, it inſtantly anſwers the call, and thus betrays its own depredations. The peaſants ſally out upon it, and the fooliſh animal finds, too late, that its inſtinct was too powerful for its ſafety.

THE ISATIS.

AS the jackall is a ſort of intermediate ſpecies between the dog and the wolf*, ſo the iſatis may be conſidered as placed between the dog and the fox. This animal has hitherto been ſuppoſed to be only a variety of the latter; but from the lateſt obſervations, there is no doubt of their being perfectly diſtinct. The iſatis is very common in all the northern countries bordering upon the Icy ſea; and is ſeldom found, except in the coldeſt countries. It extremely reſembles a fox, in the form of its body and the length of its tail; and a dog, in the make of its head and the poſition of its eyes. The hair of theſe animals is ſofter than that of a common fox; ſome are blue, ſome are white at one ſeaſon, and at another of a ruſſet brown. Although the whole of its hair be two inches long, thick, tufted and gloſſy, yet the under

* In this deſcription I have followed Mr. Buffon.

jaw is entirely without any, and the ſkin appears bare in that part.

This animal can bear only the coldeſt climates, and is chiefly ſeen along the coaſts of the icy ſea, and upon the banks of the great rivers that diſcharge themſelves therein. It is chiefly fond of living in the open country, and ſeldom ſeen in the foreſt, being moſtly found in the mountainous and naked regions of Norway, Siberia, and Lapland. It burrows, like the fox; and when with young, the female retires to her kennel, in the ſame manner as the fox is ſeen to do. Theſe holes, which are very narrow, and extremely deep, have many out-lets. They are kept very clean, and are bedded at the bottom with moſs, for the animal to be more at its eaſe. Its manner of coupling, time of geſtation, and number of young, are all ſimilar to what is found in the fox; and it uſually brings forth at the end of May, or the beginning of June.

Such are the particulars in which this animal differs from thoſe of the dog kind, and in which it reſembles them: but its moſt ſtriking peculiarity remains ſtill to be mentioned; namely, its changing its colour, and being ſeen at one time brown, and at another perfectly white. As was already ſaid, ſome are naturally blue, and their colour never changes; but

ſuch as are to be white, are, when brought forth of a yellow hue, which, in the beginning of September, is changed to white, all except along the top of the back, along which runs a ſtripe of brown, and another croſſing it down the ſhoulders, at which time the animal is called the *croſt fox*; however, this brown croſs totally diſappears before winter, and then the creature is all over white, and its fur is two inches long: this, about the beginning of May, again begins to fall; and the molting is completed about the middle of July, when the iſatis becomes brown once more. The fur of this animal is of no value, unleſs it be killed in winter.

THE HYÆNA.

THE hyæna is the laſt animal I ſhall mention among thoſe of the dog kind, which it in many reſpects reſembles, although too ſtrongly marked to be ſtrictly reduced to any type. The hyæna is nearly of the ſize of a wolf; and has ſome ſimilitude to that animal in the ſhape of its head and body. The head, at firſt ſight, does not appear to differ, except that the ears of the hyæna are longer, and more without hair; but upon obſerving more cloſely, we ſhall find the head broader, the noſe flatter, and

not ſo pointed. The eyes are not placed obliquely, but more like thoſe of a dog. The legs, particularly the hinder, are longer than thoſe either of the dog or the wolf, and different from all other quadrupedes, in having but four toes, as well on the fore-feet as on the hinder. The hair is of a dirty greyiſh, marked with black, diſpoſed in waves down its body. Its tail is ſhort, with pretty long hair; and immediately under it, above the anus, there is an opening into a kind of glandular pouch, which ſeparates a ſubſtance of the conſiſtence, but not of the odour, of civet. This opening might have given riſe to the error of the ancients, who aſſerted, that this animal was every year, alternately, male and female. Such are the moſt ſtriking diſtinctions of the hyæna, as given us by naturaliſts; which, nevertheleſs, convey but a very confuſed idea of the peculiarity of its form. Its manner of holding the head ſeems remarkable; ſomewhat like a dog, purſuing the ſcent, with the noſe near the ground. The head being held thus low, the back appears elevated, like that of the hog, which, with a long briſtly band of hair that runs all along, gives it a good deal the air of that animal; and, it is probable that, from this ſimilitude it firſt took its name, the word *huoina*

being Greek, and derived from *hus*, which ſignifies a ſow.

But no words can give an adequate idea of this animal's figure, deformity, and fierceneſs. More ſavage and untameable than any other quadrupede, it ſeems to be for ever in a ſtate of rage or rapacity, for ever growling, except when receiving its food. Its eyes then gliſten, the briſtles of its back all ſtand upright, its head hangs low, and yet its teeth appear; all which give it a moſt frightful aſpect, which a dreadful howl tends to heighten. This, which I have often heard, is very peculiar: its beginning reſembles the voice of a man moaning, and its latter part as if he were making a violent effort to vomit. As it is loud and frequent, it might, perhaps, have been ſometimes miſtaken for that of a human voice in diſtreſs, and have given riſe to the accounts of the ancients, who tell us, that the hyæna makes its moan, to attract unwary travellers, and then to deſtroy them: however this be, it ſeems the moſt untractable, and, for its ſize, the moſt terrible of all other quadrupedes; nor does its courage fall ſhort of its ferocity; it defends itſelf againſt the lion, is a match for the panther, attacks the ounce, and ſeldom fails to conquer.

It is an obſcene and ſolitary animal, to be

found chiefly in the moſt deſolate and uncultivated parts of the torrid zone, of which it is a native*. It reſides in the caverns of mountains; in the clefts of rocks, or in dens that it has formed for itſelf under the earth. Though taken never ſo young, it cannot be tamed; it lives by depredation, like the wolf, but is much ſtronger, and more courageous. It ſometimes attacks man, carries off cattle, follows the flock, breaks open the ſheep-cots by night, and ravages with inſatiable voracity. Its eyes ſhine by night; and it is aſſerted, not without great appearance of truth, that it ſees better by night than by day. When deſtitute of other proviſion, it ſcrapes up the graves, and devours the dead bodies, how putrid ſoever. To theſe diſpoſitions, which are ſufficiently noxious and formidable, the ancients have added numberleſs others, which are long ſince known to be fables: as, for inſtance, that the hyæna was male and female alternately; that having brought forth and ſuckled its young, it then changed ſexes for a year, and became a male. This, as was mentioned above, could only proceed from the opening under the tail, which all animals of this ſpecies are found to have; and which is found in the ſame manner in no other quadrupedes,

* Buffon.

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The Hyæna.

except the badger. There is in the weaſel kind, indeed, an opening, but it is lower down, and not placed above the anus, as in the badger and the hyæna. Some have ſaid that this animal changed the colour of its hair at will; others, that a ſtone was found in its eye, which, put under a man's tongue, gave him the gift of prophecy; ſome have ſaid that he had no joints in the neck, which, however, all quadrupedes are known to have; and ſome, that the ſhadow of the hyæna kept dogs from barking. Theſe, among many other abſurdities, have been aſſerted of this quadrupede; and which I mention to ſhew the natural diſpoſition of mankind, to load thoſe that are already but too guilty, with accumulated reproach.

CHAP.

CHAP. IX.

Of Animals of the Weasel Kind.

HAVING described the bolder ranks of carnivorous animals, we now come to a minuter and more feeble clafs, lefs formidable indeed than any of the former, but far more numerous, and, in proportion to their fize, more active and enterprizing. The weafel kind may be particularly diftinguifhed from other carnivorous animals, by the length and flendernefs of their bodies, which are fo fitted, as to wind, like worms, into very fmall openings, after their prey; and hence alfo they have received the name of vermin, from their fimilitude to the worm in this particular. Thefe animals differ from all of the cat kind, in the formation and difpofition of their claws, which, as in the dog kinds, they can neither draw in nor extend at pleafure, as cats are known to do. They differ from the dog kind, in being cloathed rather with fur than hair; and although fome varieties of the fox may refemble them in this particular, yet the coat of the latter is longer, ftronger, and always more refembling hair. Befide thefe diftinctions, all animals of the

weasel kind have glands placed near the anus, that either open into, or beneath it, furnishing a substance, that, in some, has the most offensive smell in nature, in others, the most pleasing perfume. All of this kind are still more marked by their habitudes and dispositions, than their external form; cruel, voracious, and cowardly, they subsist only by theft, and find their chief protection in their minuteness. They are all, from the shortness of their legs, slow in pursuit; and, therefore, owe their support to their patience, assiduity, and cunning. As their prey is precarious, they live a long time without food; and if they happen to fall in where it is in plenty, they instantly destroy all about them, before they begin to satisfy their appetite, and suck the blood of every animal, before they begin to touch its flesh.

These are the marks common to this kind, all the species of which have a most striking resemblance to each other; and he that has seen one, in some measure may be said to have seen all. The chief distinction in this numerous class of animals, is to be taken from the size; for no words can give the minute irregularities of that outline, by which one species is to be distinguished from that which is next

it. I will begin, therefore, with the leaſt and the beſt known of this kind, and ſtill marking the ſize, will proceed gradually to larger and larger, until we come from the weaſel to the glutton, which I take to be the largeſt of all. The weaſel will ſerve as a model for all the reſt; and, indeed, the points in which they differ from this little animal, are but very inconſiderable.

The Weaſel*, as was ſaid, is the ſmalleſt of this numerous tribe; its length not exceeding ſeven inches, from the tip of the noſe to the inſertion of the tail. This length, however, ſeems to be very great, if we compare it with the height of the animal, which is not above an inch and an half. In meaſuring the wolf, we find him to be not above once and an half as long as he is high; in obſerving the weaſel, we find it near five times as long as it is high, which ſhews an amazing diſproportion. The tail alſo, which is buſhy, is two inches and an half long, and adds to the apparent length of this little animal's body. The colour of the weaſel is of a bright red on the back and ſides, but white under the throat and the belly. It has whiſkers like a cat, and thirty-two teeth, which is two more than any of the cat kind; and theſe

* Britiſh Zoology, vol. i. p. 83.

alſo ſeem better adapted for tearing and chewing, than thoſe of the cat kind are. The eyes are little and black; the ears ſhort, broad, and roundiſh; and have a fold at the lower part, which makes them look as if they were double. Beneath the corners of the mouth, on each jaw, is a ſpot of brown.

This animal, though very diminutive to appearance, is, nevertheleſs, a very formidable enemy to quadrupedes an hundred times its own ſize. It is very common and well known in moſt parts of this country; but ſeems held in very different eſtimation, in different parts of it. In thoſe places where ſheep or lambs are bred, the weaſel is a moſt noxious inmate, and every art is uſed to deſtroy it: on the contrary, in places where agriculture is chiefly followed, the weaſel is conſidered as a friend that thins the number of ſuch vermin as chiefly live upon corn: however, in all places, it is one of the moſt untameable and untractable animals in the world *. When kept in a cage, either for the purpoſes of amuſement or inſpection, it will not touch any part of its victuals while any body looks on. It keeps in a continual agitation, and ſeems frighted ſo much at the ſight of mankind, that it will die, if not permitted to hide itſelf from

* Buffon, vol. xv. p. 37.

their preſence. For this purpoſe, it muſt be provided, in its cage, with a ſufficient quantity of wool or hay, in which it may conceal itſelf, and where it may carry whatever it has got to eat; which, however, it will not touch until it begins to putrefy. In this ſtate it is ſeen to paſs three parts of the day in ſleeping; and reſerves the night for its times of exerciſe and eating.

In its wild ſtate, the night is likewiſe the time during which it may be properly ſaid to live. At the approach of evening, it is ſeen ſtealing from its hole, and creeping about the farmer's yard for its prey. If it enters the place where poultry are kept, it never attacks the cocks or the hens, but immediately aims at the young ones. It does not eat its prey on the place, but, after killing it by a ſingle bite near the head, and with a wound ſo ſmall that the place can ſcarcely be perceived, it carries it off to its young, or its retreat. It alſo breaks and ſucks the eggs, and ſometimes kills the hen that attempts to defend them. It is remarkably active; and, in a confined place, ſcarce any animal can eſcape it. It will run up the ſides of walls with ſuch facility, that no place is ſecure from it; and its body is ſo ſmall, that there is ſcarce any hole but what it can wind

through. During the ſummer, its excurſions are more extenſive; but in winter it chiefly confines itſelf in barns and farm-yards, where it remains till ſpring, and where it brings forth its young. All this ſeaſon it makes war upon the rats and mice, with ſtill greater ſucceſs than the cat; for being more active and ſlender, it purſues them into their holes, and, after a ſhort reſiſtance, deſtroys them. It creeps alſo into pigeon-holes, deſtroys the young, catches ſparrows, and all kind of ſmall bird[illegible] if it has brought forth its young, h[illegible]ill greater boldneſs and avidity. I[illegible] it ventures farther from the houſe, and particularly goes into thoſe places where the rat, its chiefeſt prey, goes before it. Accordingly, it is found in the lower grounds, by the ſide of waters, near mills, and often is ſeen to hide its young in the hollow of a tree.

The female takes every precaution to make an eaſy bed for her little ones: ſhe lines the bottom of her hole with graſs, hay, leaves, and moſs, and generally brings forth from three to five at a time. All animals of this, as well as thoſe of the dog kind, bring forth their young with cloſed eyes; but they very ſoon acquire ſtrength ſufficient to follow the dam in her excurſions, and aſſiſt in her projects of petty

rapine. The weaſel, like all others of its kind, does not run on equably, but moves by bounding; and when it climbs a tree, by a ſingle ſpring it gets a good way from the ground. It jumps in the ſame manner upon its prey; and, having an extremely limber body, evades the attempts of much ſtronger animals to ſeize it.

This animal, like all of its kind, has a very ſtrong ſmell; and that of the weaſel is peculiarly fœtid. This ſcent is very diſtinguiſhable [illegible] creatures, when they void their excrement [illegible] the glands which furniſh this fœtid [illegible] which is of the conſiſtence of ſuet, open [illegible] into the orifice of the anus, and taint the excrement with the ſtrong effluvia. The weaſel [illegible] more ſtrongly in ſummer than in winter; and more abominably when irritated or purſued, than when at its eaſe. It always preys in ſilence, and never has a cry except when ſtruck, and then it has a rough kind of ſqueaking, which at once expreſſes reſentment and pain. Its appetite for animal food never forſakes it; and it ſeems even to take a pleaſure in the vicinity of putrefaction. Mr. Buffon tells us of one of them being found, with three young ones, in the carcaſs of a wolf that was grown putrid, and that had been hung up, by the hind legs, as a terror to others.

Into

Into this hollow retreat the weaſel thought proper to retire to bring forth her young; ſhe had furniſhed the cavity with hay, graſs, and leaves; and the young were juſt brought forth when they were diſcovered by a peaſant paſſing that way.

THE ERMINE, OR STOAT.

NEXT to the weaſel in ſize, and perfectly alike in figure, is the ermine. The difference between this and the former animal is ſo very ſmall, that many, and among the reſt Linnæus, who gives but one deſcription of both, have confounded the two kinds together. However their differences are ſufficient to induce later naturaliſts to ſuppoſe the two kinds diſtinct; and as their lights ſeem preferable, we chuſe to follow their deſcriptions *.

The ſtoat or ermine, differs from the weaſel in ſize, being uſually nine inches long; whereas the former is not much above ſix. The tail of the ermine is always tipped with black, and is longer in proportion to the body and more furniſhed with hair. The edges of the ears and the end of the toes in this animal are of a yellowiſh white; and although it is of the ſame colour with the weaſel, being of a lightiſh

* Buffon, Britiſh Zoology.

brown, and though both this animal, as well as the weaſel, in the moſt northern parts of Europe, changes its colour in winter, and becomes white; yet even then the weaſel may be eaſily diſtinguiſhed from the ermine by the tip of the tail, which in the latter is always black.

It is well known that the fur of the ermine is the moſt valuable of any hitherto known; and it is in winter only that this little animal has it of the proper colour and conſiſtence. In ſummer, the ermine, as was ſaid before, is brown, and it may at that time more properly be called the ſtoat. There are few ſo unacquainted with quadrupedes as not to perceive this change of colour in the hair, which in ſome degree obtains in them all. The horſe, the cow, and the goat, all manifeſtly change colour in the beginning of ſummer, the old long hair falling off, and a ſhorter coat of hair appearing in its room, generally of a darker colour, and yet more gloſſy. What obtains in our temperate climate, is ſeen to prevail ſtill more ſtrongly in thoſe regions where the winters are long and ſevere, and the ſummers ſhort and yet generally hot in an extreme degree. The animal has ſtrength enough during that ſeaſon, to throw off a warm coat of fur, which would but incommode it, and continues for two or

three months in a ſtate ſomewhat reſembling the ordinary quadrupedes of the milder climates. At the approach of winter, however, the cold encreaſing, the coat of hair ſeems to thicken in proportion; from being coarſe and ſhort it lengthens and grows finer, while multitudes of ſmaller hairs grow up between the longer, thicken the coat, and give it all that warmth and ſoftneſs which are ſo much valued in the furs of the northern animals.

It is no eaſy matter to account for this remarkable warmth of the furs of northern quadrupedes, or how they come to be furniſhed with ſuch an abundant covering. It is eaſy enough, indeed, to ſay that Nature fits them thus for the climate; and, like an indulgent mother, when ſhe expoſes them to the rigour of an intemperate winter, ſupplies them with a covering againſt its inclemency. But this is only flouriſhing; it is not eaſy, I ſay, to tell how Nature comes to furniſh them in this manner. A few particulars on this ſubject are all that we yet know. It is obſervable among quadrupedes, as well as even among the human ſpecies itſelf, that a thin ſparing diet is apt to produce hair; children that have been ill fed, famiſhed dogs and horſes, are more hairy than others whoſe food has been more plentiful. This may, therefore,

be one cause that the animals of the north, in winter are more hairy than those of the milder climates. At that season, the whole country is covered with deep snow, and the provisions which these creatures are able to procure can be but precarious and scanty. Its becoming finer may also proceed from the severity of the cold, that contracts the pores of the skin, and the hair consequently takes the shape of the aperture through which it grows, as wires are made smaller by being drawn through a smaller orifice. However this may be, all the animals of the arctic climates may be said to have their winter and summer garments, except very far to the north, as in Greenland, where the cold is so continually intense and the food so scarce, that neither the bears nor foxes change colour *.

The ermine, as was said, is remarkable among these for the softness, the closeness, and the warmth of its fur. It is brown in summer, like the weasel, and changes colour before the winter is begun, becoming a beautiful cream colour, all except the tip of the tail, as was said before, which still continues black. Mr. Daubenton had one of these brought him with its white winter fur, which he put into a cage and kept,

* Krantz's History of Greenland, vol. i. p. 72.

in order to obſerve the manner of moulting its hair. He received it in the beginning of March: in a very ſhort time it began to ſhed its coat, and a mixture of brown was ſeen to prevail among the white, ſo that at the ninth of the ſame month its head was nearly become of a reddiſh brown. Day after day this colour appeared to extend at firſt along the neck and down the back, in the manner of a ſtripe of about half an inch broad. The fore-part of the legs then aſſumed the ſame colour; a part of the head, the thighs, and the tail, were the laſt that changed; but at the end of the month there was no white remaining, except on thoſe parts which are always white in this ſpecies, particularly the throat and the belly. However, he had not the pleaſure of ſeeing this animal reſume its former whiteneſs, although he kept it for above two years; which, without doubt, was owing to its impriſoned ſtate; this colour being partly owing to its ſtinted food, and partly to the rigour of the ſeaſon. During its ſtate of confinement, this little animal always continued very wild and untractable; for ever in a ſtate of violent agitation, except when aſleep, which it often continued for three parts of the day. Except for its moſt diſagreeable ſcent, it was an extremely pretty creature, its

colour. But its principal distinction from the weasel, is the length of the hair on its tail, which is much longer in the ferret than the weasel. Words will not well express the other distinctions; and what might take up a page in dull discrimination, a single glance of the eye, when the animals themselves are presented, can discover.

As this animal is a native of the torrid zone *, so it cannot bear the rigours of our climate, without care and shelter; and it generally repays the trouble of its keeping, by its great agility in the warren. It is naturally such an enemy of the rabbit kind, that if a dead rabbit be presented to a young ferret, although it has never seen one before, it instantly attacks and bites it with an appearance of rapacity. If the rabbit be living, the ferret is still more eager, seizes it by the neck, winds itself round it, and continues to suck its blood till it be satiated.

Their chief use in warrens, is to enter the holes, and drive the rabbits in the nets that are prepared for them at the mouth. For this purpose, the ferret is muzzled; otherwise, instead of driving out the rabbit, it would content itself with killing and sucking its blood at

* Buffon.

the bottom of the hole; but, by this contrivance, being rendered unable to ſeize its prey, the rabbit eſcapes from its claws, and inſtantly makes to the mouth of the hole with ſuch precipitation, that it is inextricably entangled in the net placed there for its reception. It often happens, however, that the ferret diſengages itſelf of its muzzle, and then it is moſt commonly loſt, unleſs it be dug out; for, finding all its wants ſatisfied in the warren, it never thinks of returning to the owner, but continues to lead a rapacious ſolitary life while the ſummer continues, and dies with the cold of the winter. In order to bring the ferret from his hole, the owners often burn ſtraw and other ſubſtances at the mouth; they alſo beat above, to terrify it; but this does not always ſucceed; for as there are often ſeveral iſſues to each hole, the ferret is affected neither by the noiſe or the ſmoke, but continues ſecure at the bottom, ſleeping the greateſt part of the time, and waking only to ſatisfy the calls of hunger.

The female of this ſpecies *, is ſenſibly leſs than the male, whom ſhe ſeeks with great ardour, and, it is ſaid, often dies, without being admitted. They are uſually kept in boxes,

* Buffon.

with wool, of which they make themſelves a warm bed, that ſerves to defend them from the rigour of the climate. They ſleep almoſt continually; and the inſtant they awake, they ſeem eager for food. They are uſually fed with bread and milk. They breed twice a year. Some of them devour their young as ſoon as brought forth; and then become fit for the male again. Their number is uſually from five to ſix at a litter; and this is ſaid to conſiſt of more females than males. Upon the whole, this is an uſeful, but a diſagreeable and offenſive animal; its ſcent is fœtid, its nature voracious, it is tame without any attachment, and ſuch is its appetite for blood, that it has been known to attack and kill children in the cradle. It is very eaſy to be irritated; and, although at all times its ſmell is very offenſive, it then is much more ſo; and its bite is very difficult of cure.

To the ferret kind we may add an animal which Mr. Buffon calls the Vanſire, the ſkin of which was ſent him ſtuffed, from Madagaſcar. It was thirteen inches long, a good deal reſembling the ferret in figure, but differing in the number of its grinding teeth, which amounted to twelve; whereas, in the ferret, there are but eight: it differed alſo in colour,

being of a dark brown, and exactly the ſame on all parts of its body. Of this animal, ſo nearly reſembling the ferret, we have no other hiſtory but the mere deſcription of its figure: and in a quadrupede whoſe kind is ſo ſtrongly marked, perhaps this is ſufficient to ſatisfy curioſity.

THE POLECAT.

THE Polecat is larger than the weaſel, the ermine, or the ferret, being one foot five inches long; whereas, the weaſel is but ſix inches, the ermine nine, and the ferret eleven inches. It ſo much reſembles the ferret in form, that ſome have been of opinion they were one and the ſame animal; nevertheleſs, there are a ſufficient number of diſtinctions between them: it is, in the firſt place, larger than the ferret; it is not quite ſo ſlender, and has a blunter noſe; it differs alſo internally, having but fourteen ribs, whereas the ferret has fifteen; and wants one of the breaſt bones, which is found in the ferret: however, warreners aſſert, that the polecat will mix with the ferret; and they are ſometimes obliged to procure an intercouſe between theſe two animals, to improve the breed of the latter, which, by long confinement, is ſometimes

ſeen to abate of its rapacious diſpoſition. Mr. Buffon denies that the ferret will admit the polecat; yet gives a variety, under the name of both animals, which may very probably be a ſpurious race between the two.

However this be, the polecat ſeems by much the more pleaſing animal of the two; for although the long ſlender ſhape of all theſe vermin tribes gives them a very diſagreeable appearance, yet the ſoftneſs and colour of the hair in ſome of them, attones for the defect, and renders them, if not pretty, at leaſt not frightful. The polecat, for the moſt part, is of a deep chocolate colour; it is white about the mouth; the ears are ſhort, rounded, and tipt with white; a little beyond the corners of the mouth a ſtripe begins, which runs backward, partly white and partly yellow: its hair, like that of all this claſs, is of two ſorts; the long and the furry: but, in this animal, the two kinds are of different colours; the longeſt is black, and the ſhorter yellowiſh *: the throat, feet and tail, are blacker than any other parts of the body: the claws are white underneath, and brown above; and its tail is about two inches and an half.

It is very deſtructive to young game of all

* Ray's Synopſis.

kinds *: but the rabbit ſeems to be its favourite prey; a ſingle polecat is often ſufficient to deſtroy a whole warren; for, with that inſatiable thirſt for blood which is natural to all the weaſel kind, it kills much more than it can devour; and I have ſeen twenty rabbits at a time taken out dead, which they had deſtroyed, and that by a wound which was hardly perceptible. Their ſize, however, which is ſo much larger than the weaſel, renders their retreats near houſes much more precarious; although I have ſeen them burrow near a village, ſo as ſcarcely to be extirpated. But, in general, they reſide in woods or thick brakes, making holes under ground of about two yards deep, commonly ending among the roots of large trees, for greater ſecurity. In winter they frequent houſes, and make a common practice of robbing the hen-rooſt and the dairy.

The polecat is particularly deſtructive among pidgeons †, when it gets into a dove-houſe; without making ſo much noiſe as the weaſel, it does a great deal more miſchief; it diſpatches each with a ſingle wound in the head; and, after killing a great number, and ſatiating itſelf with their blood, it then bgins to think

* Britiſh Zoology, vol. i. p. 78. † Buffon.

of carrying them home. This it carefully performs, going and returning, and bringing them one by one to its hole; but if it ſhould happen that the opening by which it got into the dove-houſe, be not large enough for the body of the pidgeon to get through, this miſchievous creature contents itſelf with carrying away the heads, and makes a moſt delicious feaſt upon the brains.

It is not leſs fond of honey, attacking the hives in winter, and forcing the bees away. It does not remove far from houſes in winter, as its prey is not ſo eaſily found in the woods during that ſeaſon. The female brings forth her young in ſummer, to the number of five or ſix at a time; theſe ſhe ſoon trains to her own rapacious habits, ſupplying the want of milk, which no carnivorous quadrupede has in plenty, with the blood of ſuch animals as ſhe happens to ſeize. The fur of this animal is conſidered as ſoft and warm; yet it is in leſs eſtimation than ſome of a much inferior kind, from its offenſive ſmell, which can never be wholly removed, or ſuppreſſed. The polecat ſeems to be an inhabitant of the temperate climates *, ſcarce any being found towards the north, and but very few in the warmer la-

* Buffon.

De Seve del. J.s Taylor sculp.

The Pole-cat.

titudes. The ſpecies appears to be confined in Europe, from Poland to Italy. It is certain, that theſe animals are afraid of the cold, as they are often ſeen to come into houſes in winter, and as their tracks are never found in the ſnow, near their retreats. It is probable, alſo, that they are afraid of heat, as they are but thinly ſcattered in the ſouthern climates.

THE MARTIN.

THE Martin is a larger animal than any of the former, being generally eighteen inches long, and the tail ten more. It differs from the polecat, in being about four or five inches longer; its tail alſo is longer in proportion, and more buſhy at the end; its noſe is flatter; its cry is ſharper and more piercing; its colours are more elegant; and, what ſtill adds to their beauty, its ſcent, very unlike the former, inſtead of being offenſive, is conſidered as a moſt pleaſing perfume. The martin, in ſhort, is the moſt beautiful of all Britiſh beaſts of prey: its head is ſmall, and elegantly formed; its eyes lively; its ears are broad, rounded and open; its back, its ſides, and tail, are covered with a fine thick downy fur, with longer hair intermixed; the roots are aſh colour, the middle of

a bright chesnut, the points black; the head is brown, with a slight cast of red; the legs, and upper sides of the feet, are of a chocolate colour; the palms, or under sides, are covered with a thick down, like that of the body; the feet are broad, the claws white, large and sharp, well adapted for the purposes of climbing, but, as in others of the weasel kind, incapable of being sheathed or unsheathed at pleasure; the throat and breast are white; the belly of the same colour with the back, but rather paler; the hair on the tail is very long, especially at the end, where it appears much thicker than near the insertion.

There is also a variety of this animal, called the yellow-breasted martin, which in no respect differs from the former, except that this has a yellow breast, whereas the other has a white one: the colour of the body also is darker; and, as it lives more among trees than the other martin, its fur is more valuable, beautiful and glossy. The former of these Mr. Buffon calls the Fouine; the latter, simply the Martin; and he supposes them to be a distinct species: but as they differ only in colour, it is unnecessary to embarrass history by a new distinction, where there is only so minute a difference.

Of all animals of the weasel kind, the martin is

is the most pleasing; all its motions shew great grace, as well as agility; and there is scarce an animal in our woods that will venture to oppose it. Quadrupedes five times as big are easily vanquished; the hare, the sheep, and even the wild cat itself, though much stronger, is not a match for the martin: and although carnivorous animals are not fond of engaging each other, yet the wild cat and the martin seldom meet without a combat. Gesner tells us of one of this kind that he kept tame, which was extremely playful and pretty; it went among the houses of the neighbourhood, and always returned home when hungry: it was extremely fond of a dog that had been bred up with it, and used to play with it as cats are seen to play, lying on its back, and biting without anger or injury. That which was kept tame by Mr. Buffon, was not quite so social: it was divested of its ferocity, but continued without attachment; and was still so wild as to be obliged to be held by a chain. Whenever a cat appeared, it prepared for war; and if any of the poultry came within its reach, it flew upon them with avidity. Though it was tied by the middle of the body, it frequently escaped: at first it returned after some hours, but without seeming pleased, and as if it only

came to be fed; the next time it continued abroad longer; and, at laſt, went away without ever returning. It was a female, and was, when it went off, a year and an half old; and Mr. Buffon ſuppoſes it to have gone in queſt of the male. It ate every thing that was given it, except ſallad or herbs; and it was remarkably found of honey. It was remarked that it drank often, and often ſlept for two days together; and that, in like manner, it was often two or three days without ſleeping. Before it went to ſleep, it drew itſelf up into a round, hid its head, and covered it with its tail. When awake it was in continual agitation, and was obliged to be tied up, not leſs to prevent its attacking the poultry than to hinder it from breaking whatever it came near, by the capricious wildneſs of its motions.

The yellow-breaſted martin is much more common in France than in England; and yet even there this variety is much ſcarcer than that with the white breaſt. The latter keeps nearer houſes and villages, to make its petty ravages among the ſheep and the poultry; the other keeps in the woods, and leads in every reſpect a ſavage life, building its neſt on the tops of trees, and living upon ſuch animals as are entirely wild like itſelf. About night-fall it

usually quits its solitude to seek its prey, hunts after squirrels, rats, and rabbits; destroys great numbers of birds and their young, takes the eggs from the nest, and often removes them to its own without breaking*. The instant the martin finds itself pursued by dogs, for which purpose there is a peculiar breed, that seem fit for this chace only, it immediately makes to its retreat, which is generally in the hollow of some tree, towards the top, and which it is impossible to come at without cutting it down. Their nest is generally the original tenement of the squirrel, which that little animal bestowed great pains in completing: but the martin having killed and dispossessed the little architect, takes possession of it for its own use, enlarges its dimensions, improves the softness of the bed, and in that retreat brings forth its young. Its litter is never above three or four at a time; they are brought forth with the eyes closed, as in all the rest of this kind, and very soon come to a state of perfection. The dam compensates for her own deficiency of milk, by bringing them eggs and live birds, accustoming them from the beginning to a life of carnage and rapine. When she leads them from the nest into the woods, the

* Brooke's Natural History.

birds at once diftinguifh their enemies and attend them, as we before obferved of the fox, with all the marks of alarm and animofity. Wherever the martin conducts her young, a flock of fmall birds are feen threatening and infulting her, alarming every thicket, and often directing the hunter in his purfuit.

The martin is more common in North-America than in any part of Europe. Thefe animals are found in all the northern parts of the world, from Siberia to China and Canada. In every country they are hunted for their furs, which are very valuable, and chiefly fo when taken in the beginning of winter. The moft efteemed part of the martin's fkin is that part of it which is browner than the reft, and ftretches along the back-bone. Above twelve thoufand of thefe fkins are annually imported into England from Hudfon's Bay, and above thirty thoufand from Canada.

THE SABLE.

MOST of the claffes of the weafel kind would have continued utterly unknown and difregarded were it not for their furs, which are finer, more gloffy and foft, than thofe of any other quadrupede. Their difpofitions are fierce and untameable; their fcent generally offenfive;

and their figure disproportioned and unpleasing. The knowledge of one or two of them would, therefore, have sufficed curiosity; and the rest would probably have been confounded together, under one common name, as things useless and uninteresting, had not their skins been coveted by the vain, and considered as capable of adding to human magnificence or beauty.

Of all these, however, the skin of the sable is the most coveted, and held in the highest esteem. It is of a brownish black, and the darker it is it becomes the more valuable. A single skin, though not above four inches broad, is often valued at ten or fifteen pounds *; the fur differing from others in this, that it has no grain; so that, rub it which way you will, it is equally smooth and unresisting. Nevertheless, though this little animal's robe was so much coveted by the great, its history till of late was but very little known; and we are obliged to Mr. Jonelin for the first accurate description of its form and nature †. From him we learn that the sable resembles the martin in form and size, and the weasel in the number of its teeth; for it is to be observed, that whereas the martin has thirty-eight teeth, the weasel has but thirty-four; in this respect, therefore, the sable seems to

* Regnard.

† Buffon, vol. xxvii. p. 113.

make the ſhade between theſe two animals; being ſhaped like the one, and furniſhed with teeth like the other. It is alſo furniſhed with very large whiſkers about the mouth; its feet are broad, and, as in the reſt of its kind, furniſhed with five claws on each foot. Theſe are its conſtant marks; but its fur, for which it is ſo much valued, is not always the ſame. Some of this ſpecies are of a dark brown over all the body, except the ears and the throat, where the hair is rather yellow: others are more of a yellowiſh tincture, their ears and throat being alſo much paler. Theſe in both are the colours they have in winter, and which they are ſeen to change in the beginning of the ſpring; the former becoming of a yellow brown, the latter of a pale yellow. In other reſpects they reſemble their kind, in vivacity, agility, and inquietude; in ſleeping by day and ſeeking their prey by night; in living upon ſmaller animals, and in the diſagreeable odour that chiefly characterizes their race.

They generally inhabit along the banks of rivers, in ſhady places, and in the thickeſt woods. They leap with great eaſe from tree to tree, and are ſaid to be afraid of the ſun, which tarniſhes the luſtre of their robes. They are chiefly hunted in winter for their ſkins,

during which part of the year they are only in ſeaſon. They are moſtly found in Siberia, and but very few in any other country of the world; and this ſcarcity it is which enhances their value. The hunting of the ſable chiefly falls to the lot of the condemned criminals, who are ſent from Ruſſia into theſe wild and extenſive foreſts that, for a great part of the year, are covered with ſnow; and in this inſtance, as in many others, the luxuries and ornaments of the vain, are wrought out of the dangers and the miſeries of the wretched. Theſe are obliged to furniſh a certain number of ſkins every year, and are puniſhed if the proper quantity be not provided.

Thr ſable is alſo killed by the Ruſſian ſoldiers, who are ſent into thoſe parts to that end. They are taxed a certain number of ſkins yearly, like the former, and are obliged to ſhoot with only a ſingle ball, to avoid ſpoiling the ſkin, or elſe with croſs-bow and blunt arrows. As an encouragment to the hunters, they are allowed to ſhare among themſelves the ſurplus of thoſe ſkins which they thus procure; and this, in the proceſs of ſix or ſeven years, amounts to a very conſiderable ſum. A colonel, during his ſeven years ſtay, gains about four thouſand crowns for his ſhare, and the common men ſix or ſeven hundred each for theirs.

THE ICHNEUMON.

THE Ichneumon, which some have injudiciously denominated the Cat of Pharaoh, is one of the boldest and most useful animals of all the weasel kind. In the kingdom of Egypt, where it is chiefly bred, it is used for the same purposes that cats are in Europe, and is even more serviceable, as being more expert in catching mice than they. This animal is usually of the size of the martin, and greatly resembles it in appearance, except that the hair, which is of a grisly black, is much rougher and less downy. The tail also is not so bushy at the end; and each hair in particular has three or four colours, which are seen in different dispositions of its body. Under its rougher hairs, there is a softer fur of a brownish colour, the rough hair being about two inches long, but that of the muzzle extremely short, as likewise that on the legs and paws. However, being long since brought into a domestic state, there are many varieties in this animal; some being much larger than the martin, others much less; some being of a lighter mixture of colours, and some being streaked in the manner of a cat.

The Ichneumon, with all the strength of a cat, has more instinct and agility; a more uni-

verſal appetite for carnage, and a greater variety of power to procure it*. Rats, mice, birds, ſerpents, lizards and inſects, are all equally purſued; it attacks every living thing which it is able to overcome, and indiſcriminately preys on fleſh of all kinds. Its courage is equal to the vehemence of its appetite. It fears neither the force of the dog nor the inſidious malice of the cat; neither the claws of the vulture nor the poiſon of the viper. It makes war upon all kinds of ſerpents with great avidity, ſeizes and kills them how venomous ſoever they be; and we are told that when it begins to perceive the effects of their rage, it has recourſe to a certain root, which the Indians call after its name, and aſſert to be an antidote for the bite of the aſp or the viper.

But what this animal is particularly ſerviceable to the Egyptians for is, that it diſcovers and deſtroys the eggs of the crocodile. It alſo kills the young ones that have not as yet been able to reach the water; and, as fable uſually goes hand in hand with truth, it is ſaid that the ichneumon ſometimes enters the mouth of the crocodile, when it is found ſleeping on the ſhore, boldly attacks the enemy in the inſide,

* The reſt of this deſcription is extracted from Mr. Buffon, except where marked with commas.

and at length, when it has effectually deſtroyed it, eats its way out again.

The ichneumon when wild generally reſides along the banks of rivers; and in times of inundation makes to the higher ground, often approaching inhabited places in queſt of prey. It goes forward ſilently and cautiouſly, changing its manner of moving according to its neceſſities. Sometimes it carries the head high, ſhortens its body, and raiſes itſelf upon its legs; ſometimes it lengthens itſelf and ſeems to creep along the ground; it is often obſerved to ſit upon its hind legs, like a dog when taught to beg; but more commonly it is ſeen to dart like an arrow upon its prey, and ſeize it with inevitable certainty. Its eyes are ſprightly and full of fire, its phyſiognomy ſenſible, its body nimble, its tail long, and its hair rough and various. Like all of its kind, it has glands that open behind and furniſh an odorous ſubſtance. Its noſe is too ſharp and its mouth too ſmall to permit its ſeizing things that are large; however, it makes up by its courage and activity its want of arms; it eaſily ſtrangles a cat though ſtronger and larger than itſelf; and often fights with dogs, which, though never ſo bold, learn to dread the ichneumon as a formidable enemy. It alſo takes the water like the otter, and, as we are told, will continue under it much longer.

This animal grows faſt and dies ſoon. It is found in great numbers in all the ſouthern parts of Aſia, from Egypt to Java; and it is alſo found in Africa, particularly at the Cape of Good Hope. It is domeſtic, as was ſaid, in Egypt; but in our colder climates it is not eaſy to breed or maintain them, as they are not able to ſupport the rigour of our winters. Nevertheleſs they take every precaution that inſtinct can dictate to keep themſelves warm; they wrap themſelves up into a ball, hiding ths head between the legs, and in this manner continue to ſleep all day long. " Seba had one ſent him from the iſland of Ceylon, which he permitted to run for ſome months about the houſe. It was heavy and ſlothful by day, and often could not be awaked even with a blow; but it made up this indolence by its nocturnal activity, ſmelling about without either being wholly tame or wholly miſchievous. It climbed up the walls and the trees with very great eaſe, and appeared extremely fond of ſpiders and worms, which it preferred probably from their reſemblance to ſerpents, its moſt natural food. It was alſo particularly eager to ſcratch up holes in the ground; and, this added to its wildneſs and uncleanlineſs, obliged our naturaliſt to ſmother it in ſpirits, in order

to preserve, and add it to the rest of his collection."

This animal was one of those formerly worshipped by the Egyptians, who considered every thing that was serviceable to them as an emanation of the Deity, and worshipped such as the best representatives of God below. Indeed, if we consider the number of eggs which the crocodile lays in the sand at a time, which often amount to three or four hundred, we have reason to admire this little animal's usefulness as well as industry in destroying them, since otherwise the crocodile might be produced in sufficient numbers to over-run the whole earth.

THE STINKARDS.

THIS is a name which our sailors give to one or two animals of the weasel kind, which are chiefly found in America. All the weasel kind, as was already observed, have a very strong smell; some of them indeed approaching to a perfume, but the greatest number most insupportably fœtid. But the smell of our weasels, and ermine, and polecats, is fragrance itself when compared to that of the *squash* and the *skink*, whieh have been called the Polecats of America. These two are found in different parts of America, both differing in colour and

De Seve del. J. Taylor sculp.

The Squash.

fur, but both obviously of the weasel kind, as appears not only from their figure and odour, but also from their disposition. The *squash* is about the size of a polecat, its hair of a deep brown, but principally differing from all of this kind, in having only four toes on the feet before, whereas all other weasels have five. The *skink*, which I take to be Catesby's Virginia polecat, resembles a polecat in shape and size, but particularly differs in the length of its hair and colour. The hair is above three inches and an half long, and that at the end of the tail above four inches. The colour is partly black and partly white, variously disposed over the body, very glossy, long, and beautiful. There seem to be two varieties more of this animal, which Mr. Buffon calls the Conepate and the Zorille. He supposes each to be a distinct species: but as they are both said to resemble the polecat in form, and both to be cloathed with long fur of a black and white colour, it seems needless to make a distinction. The conepate resembles the skink in all things except in size, being smaller, and in the disposition of its colours, which are more exact, having five white stripes upon a black ground, running longitudinally from the head to the tail. The zorille resembles the skink, but is rather smaller and more beauti-

fully coloured, its ſtreaks of black and white being more diſtinct, and the colours of its tail being black at its inſertion, and white at the extremity; whereas in the ſkunk they are all of one grey colour.

But whatever differences there may be in the figure or colour of theſe little animals, they all agree in one common affection, that of being intolerably fœtid and loathſome. I have already obſerved, that all the weaſel kind have glands furniſhing an odorous matter, near the anus, the conduits of which generally have their aperture juſt at its opening. That ſubſtance which is ſtored up in theſe receptacles, is in ſome of this kind, ſuch as in the martin, already mentioned, and alſo in the genet and the civet, to be deſcribed hereafter, a moſt grateful perfume; but in the weaſel, the ermine, the ferret, and the polecat, it is extremely fœtid and offenſive. Theſe glands in the animals now under conſideration are much larger, and furniſh a matter ſublimed to a degree of putreſcence that is truly amazing. As to the perfumes of muſk and civet, we know that a ſingle grain will diffuſe itſelf over a whole houſe, and continue for months to ſpread an agreeable odour, without diminution. However, the perfume of the muſk or the civet is nothing, either for ſtrength or

duration, to the inſupportable odour of theſe. It is uſually voided with their excrement; and if but a ſingle drop happens to touch any part of a man's garment, it is more than probable that he can never wear any part of it more.

In deſcribing the effects produced by the excrement of theſe animals, we often hear of its raiſing this diabolical ſmell by its urine. However, of this I am apt to doubt; and it ſhould ſeem to me, that, as all the weaſel kind have their excrements ſo extremely fœtid from the cauſe above mentioned, we may conſider theſe alſo as being fœtid from the ſame cauſes. Beſides, they are not furniſhed with glands to give their urine ſuch a ſmell; and the analogy between them and the weaſel kind being ſo ſtrong in other reſpects, we may ſuppoſe they reſemble each other in this. It has alſo been ſaid that they take this method of ejecting their excrement to defend themſelves againſt their purſuers; but it is much more probable that their ejection is the convulſive effect of terror, and that it ſerves as their defence without their own concurrence. Certain it is, that they never ſmell thus horridly, except when enraged or affrighted, for they are often kept tame about the houſes of the planters of America, without being very offenſive.

The habitudes of all theſe animals are the ſame, living like all the reſt of the weaſel kind, as they prey upon ſmaller animals and birds eggs. The ſquaſh, for inſtance, burrows like the pole-cat in the clefts of rocks, where it brings forth its young. It often ſteals into farm-yards, and kills the poultry, eating only their brains. Nor is it ſafe to purſue or offend it; for then it calls up all its ſcents, which are its moſt powerful protection. At that time neither men nor dogs will offer to approach it; the ſcent is ſo ſtrong, that it reaches for half a mile round, and more near at hand is almoſt ſtifling. If the dogs continue to purſue, it does all in its power to eſcape, by getting up a tree, or by ſome ſuch means; but if driven to an extremity, it then lets fly upon the hunters; and if it ſhould happen that a drop of this fœtid diſcharge falls in the eye, the perſon runs the riſque of being blinded for ever*.

The dogs themſelves inſtantly abate of their ardour, when they find this extraordinary battery played off againſt them; they inſtantly turn tail, and leave the animal undiſputed maſter of the field; and no exhortations can ever bring them to rally. "In the year 1749," ſays Kalm, "one of theſe animals came near the farm where I

* Voyage de Kalm, as quoted by Buffon, vol. xxvii. p. 93.

lived.

lived. It was in winter time, during the night; and the dogs that were upon the watch, purſued it for ſome time, until it diſcharged againſt them. Although I was in my bed a good way off, I thought I ſhould have been ſuffocated; and the cows and oxen, by their lowings, ſhewed how much they were affected by the ſtench. About the end of the ſame year, another of theſe animals crept into our cellar, but did not exhale the ſmalleſt ſcent, becauſe it was not diſturbed. A fooliſh woman, however, who perceived it at night, by the ſhining of its eyes, killed it, and at that moment its ſtench began to ſpread. The whole cellar was filled with it to ſuch a degree, that the woman kept her bed for ſeveral days after; and all the bread, meat, and other proviſions, that were kept there, were ſo infected, that they were obliged to be thrown out of doors." Nevertheleſs, many of the planters, and the native Americans, keep this animal tame about their houſes; and ſeldom perceive any diſagreeable ſcents, except it is injured or frighted. They are alſo known to eat its fleſh, which ſome aſſert to be tolerable food; however, they take care to deprive it of thoſe glands which are ſo horridly offenſive.

THE GENETTE.

FROM the quaſh, which is the moſt offenſive animal in nature, we come to the Genette, which is one of the moſt beautiful and pleaſing. Inſtead of the horrid ſtench with which the former affects us, this is of a moſt grateful odour; more faint than civet, but to ſome, for that reaſon, more agreeable. This animal is rather leſs than the martin; though there are genettes of different ſizes; and I have ſeen one rather larger. It alſo differs ſomewhat in the form of its body. It is not eaſy, in words, to give an idea of the diſtinction. It reſembles all thoſe of the weaſel kind, in its length, compared to its height; it reſembles them in having a ſoft beautiful fur, in having its feet armed with claws that cannot be ſheathed, and in its appetite for petty carnage. But then it differs from them in having the noſe much ſmaller and longer, rather reſembling that of a fox than a weaſel. The tail alſo, inſtead of being buſhy, tapers to a point, and is much longer; its ears are larger, and its paws ſmaller. As to its colours, and figure in general, the genette is ſpotted with black, upon a ground mixed with red and grey. It has two ſorts of hair, the one

ſhorter and ſofter, the other longer and ſtronger, but not above half an inch long on any part of its body, except the tail. Its ſpots are diſtinct and ſeparate upon the ſides, but unite towards the back, and form black ſtripes, which run longitudinally from the neck backwards. It has alſo along the back a kind of mane or longiſh hair, which forms a black ſtreak from the head to the tail, which laſt is marked with rings, alternately black and white, its whole length.

The genette, like all the reſt of the weaſel kinds, has glands, that ſeparate a kind of perfume, reſembling civet, but which ſoon flies off. Theſe glands open differently from thoſe of other animals of this kind; for, as the latter have their apertures juſt at the opening of the anus, theſe have their aperture immediately under it; ſo that the male ſeems, for this reaſon, to the ſuperficial obſerver to be of two ſexes.

It reſembles the martin very much in its habits and diſpoſition *; except, that it ſeems tamed much more eaſily. Belonius aſſures us, that he has ſeen them in the houſes at Conſtantinople as tame as cats; and that they were permitted to run every where about, without doing the leaſt miſchief. For this reaſon they

* Buffon, vol. xix. p. 187.

have been called the Cats of Conſtantinople; although they have little elſe in common with that animal, except their ſkill in ſpying out and deſtroying vermin. Naturaliſts pretend that it inhabits only the moiſt grounds, and chiefly reſides along the banks of rivers, having never been found in mountains nor dry places. The ſpecies is not much diffuſed; it is not to be found in any part of Europe, except Spain and Turky; it requires a warm climate to ſubſiſt and multiply in; and yet it is not to be found in the warmer regions either of India or Africa. From ſuch as have ſeen its uſes at Conſtantinople, I learn, that it is one of the moſt beautiful, cleanly, and induſtrious animals in the world: that it keeps whatever houſe it is in, perfectly free from mice and rats, which cannot endure its ſmell. Add to this, its nature is mild and gentle, its colours various and gloſſy, its fur valuable; and, upon the whole, it ſeems to be one of thoſe animals that, with proper care, might be propagated amongſt us, and might become one of the moſt ſerviceable of our domeſtics.

THE CIVET.

PROCEEDING from the ſmaller to the greater of this kind, we come, in the laſt place,

to the Civet, which is much larger than any of the former; for as the martin is not above ſixteen inches long, the civet is found to be above thirty. Mr. Buffon diſtinguiſhes this ſpecies into two kinds; one of which he calls the Civet, and the other the Zibet. The latter principally differs from the former in having the body longer and more ſlender, the noſe ſmaller, the ears longer and broader; no mane or long hair running down the back in the latter; and the tail is longer and better marked with rings of different colours, from one end to the other. Theſe are the differences which have induced this great naturaliſt to ſuppoſe them animals of diſtinct ſpecies; and to allot each a ſeparate deſcription. How far future experience may confirm this conjecture, time muſt diſcover; but certain it is, that if ſuch ſmall varieties make a ſeparate claſs, there may be many other animals equally entitled to peculiar diſtinction that now are claſſed together. We ſhall, therefore, content ourſelves, at preſent, with conſidering, as former naturaliſts have done, theſe two merely as varieties of the ſame animal, and only altered in figure, by climate, food, or education.

The civet reſembles animals of the weaſel kind in the long ſlenderneſs of its body, the

shortness of its legs, th[illegible] odorous matter that exudes from the glands behind [illegible] the softness of [illegible] fur, the number of its claws, and their inca[illegible] of being sheathed. [illegible] differs from them in [illegible] much larger than [illegible] hitherto de[illegible]; in having the nose lengthened, so as to rese[illegible] that of the fox; the tail long and tapering to a point; [illegible] ears strait, like those of a cat. The colour of [illegible] civet varies: it is commonly ash, spotted with black; though it is whiter in the female, tending to yellow; and the spots are much larger, like those of a panther. The colour on the belly, and und[illegible] the throat, is black; whereas the other parts [illegible] the body are black or streaked with grey. Th[illegible] animal varies in its colour, being sometim[illegible] streaked, as in our kind of cats called Tabbie[illegible] It has whiskers, like the rest of its kind; an[illegible] its eye is black and beautiful.

The opening of the pouch or bag, which i[illegible] the receptable of the civet, differs from that o[illegible] the rest of the weasel kind, not opening int[illegible] but under the anus. Beside this opening which is large, there is still another lower down but for what purposes designed, is not known The pouch itself is about two inches and a[illegible] half broad, and two long; its opening makes a chink, from the top downwards that is about

two inches and an half long; and is covered on the edges, and within, with short hair: when the two [illegible] are drawn [illegible]nder, the inward cavity may be ſeen, large enough to hold a ſmall pullet's egg; all round this are ſmall glands, opening and furniſhing th[illegible]ng perfume which is ſo well known, and [illegible]ound, in this pouch, [illegible]d conſiſtence of pomatum. Thoſe who make it their buſineſs to breed theſe animals for their perfume, uſually take it from them twice or thrice a week, and ſometimes oftener. The animal is kept in a long ſort of a box, in which it cannot turn round. The perſon, therefore, opens this box behind, drags the animal backwards by the tail, keeps it in this poſition by a bar before, and, with a wooden ſpoon, takes the civet from the pouch, as carefully as he can; then lets the tail go, and ſhuts the box again. The perfume, thus procured, is put into a veſſel, which he takes care to keep ſhut; and when a ſufficient quantity is procured, it is ſold to very great advantage.

The civet *, although a native of the warmeſt climates, is yet found to live in temperate, and even cold countries, provided it be defended carefully from the injuries of the air.

* Buffon, vol. xix.

Wherefore, it is not only bred among the Turks, the Indians, and Africans, but great numbers of these animals are also bred in Holland, where the ſcraping people make no ſmall gain of its perfume. The perfume of Amſterdam is reckoned the pureſt of any; the people of other countries adulterating it with gums, and other matters, which diminiſh its value, but encreaſe its weight. The quantity which a ſingle animal affords generally depends upon its health and nouriſhment. It gives more in proportion as it is more delicately and abundantly fed. Raw fleſh, haſhed ſmall, eggs, rice, birds, young fowls, and particularly fiſh, are the kinds of food the civet moſt delights in. Theſe are to be changed and altered, to ſuit and entice its appetite, and continue its health. It gets but very little water; and although it drinks but rarely, yet it makes urine very frequently; and upon ſuch occaſions, we cannot, as in other animals, diſtinguiſh the male from the female.

The perfume of the civet is ſo ſtrong that it communicates itſelf to all parts of the animal's body; the fur is impregnated thereby, and the ſkin penetrated to ſuch a degree, that it continues to preſerve the odour for a long time after it is ſtript off. If a perſon be ſhut up with one

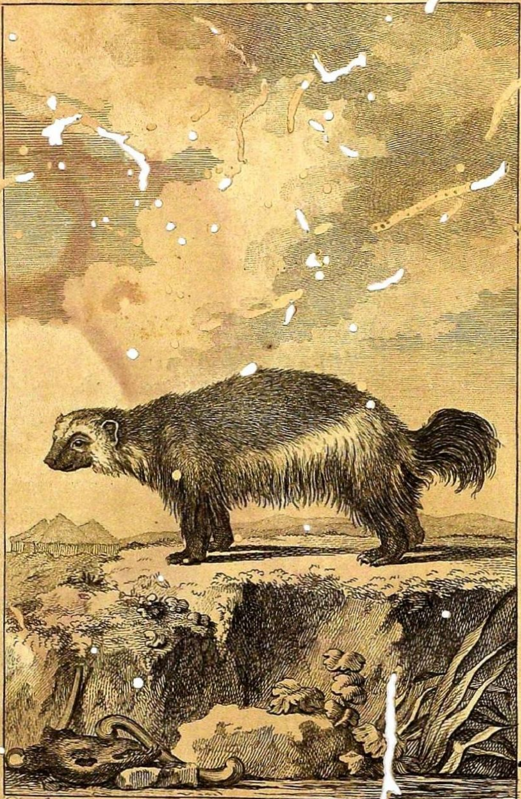
of them in a cloſe room, he cannot ſupport the perfume, which is ſo copiouſly diffuſed. When the animal is irritated, as in all the weaſel kind, its ſcent is much more violent than ordinary; and if it be tormented ſo as to make it ſweat, this alſo is a ſtrong perfume, and ſerves to adulterate or encreaſe that is otherwiſe obtained from it. In general, it is ſold in Holland, for about fifty ſhillings an ounce; though, like all other commodities, its value alters in proportion to the demand. Civet muſt be choſen new, of a good conſiſtence, a whitiſh colour, and a ſtrong, diſagreeable ſmell. There is ſtill a very conſiderable traffic carried on from Buſſerah, Calicut, and other places in India, where the animal that produces it is bred; from the Levant alſo, from Guinea, and eſpecially from Braſil, in South America, although Mr. Buffon is of opinion that the animal is a native only of the Old Continent, and not to be found wild in the New. The beſt civet, however, is furniſhed, as was obſerved, by the Dutch, though not in ſuch quantities at preſent as ſome years paſt, when this perfume was more in faſhion. Civet is a much more grateful perfume than muſk, to which it has ſome reſemblance; and was ſome years ago uſed for the ſame purpoſes in medicine. But,

at preſent, it is quite diſcontinued in preſcription; and perſons of taſte or elegance ſeem to proſcribe it even from the toilet. Perfumes, like dreſs, have their viciſſitudes: muſk was in peculiar repute, until diſplaced by civet; both gave ground, upon diſcovering the manner of preparing ambergreaſe; and even this is now diſuſed for the leſs powerful vegetable kinds of fragrance, ſpirit of lavender, or otter of roſes.

As to the reſt, the civet is ſaid to be a wild fierce animal; and, although ſometimes tamed, is never thoroughly familiar. Its teeth are ſtrong and cutting, although its claws be feeble and inflexible. It is light and active, and lives by prey, as the reſt of its kind, purſuing birds, and other ſmall animals that it is able to overcome. They are ſometimes ſeen ſtealing into the yards and outhouſes, to ſeize upon the poultry: their eyes ſhine in the night, and it is very probable that they ſee better in the dark than by day. When they fail of animal food, they are found to ſubſiſt upon roots and fruits, aud very ſeldom drink; for which reaſon they are never found near great waters. They breed very faſt in their native climates, where the heat ſeems to conduce to their propagation; but in our temperate latitudes, although they furniſh their perfume in great quantities, yet

De Seve del. Js. Taylor sculp

The Civet.



De Seve del. Js. Taylor sculp.

The Glutton.

they are not found to multiply.—A proo their perfume has no analogy with their appetite for generation.

THE GLUTTON.

I WILL add but one animal more to this numerous clafs of the weafel kind; namely, the Glutton, which, for feveral reafons, feems to belong to this tribe, and this only. We have hitherto had no precife defcription of this quadrupede; fome refembling it to a badger, fome to a fox, and fome to an hyæna. Linnæus places it among the weafels, from the fimilitude of its teeth; it fhould feem to me to refemble this animal ftill more, from the great length of its body, and the fhortnefs of its legs, from the foftnefs of its fur, its difagreeable fcent, and its infatiable appetite for animal food. Mr. Klein, who faw one of them which was brought alive from Siberia, affures us, that it was about three feet long*, and about a foot and an half high. If we compare thefe dimenfions with thofe of other animals, we fhall find that they approach more nearly to the clafs we are at

* He fays it was an ell, eight inches long; I have, therefore, given its length as fuppofing it to be a Flemifh ell, which is twenty-feven inches.

[differ]ent defcribing than any other; and that the glutton may very juftly be conceived under the form of a great overgrown weafel. Its nofe, its ears, its teeth, and its long bufhy tail, are entirely fimilar; and as to what is faid of its being rather corpulent than flender, it is moft probable that thofe who defcribed it thus faw it after eating, at which time its belly we are affured is moft monftroufly diftended: however, fufpending all certainty upon this fubject, I will take leave rather to follow Linnæus than Buffon in defcribing this animal; and leave future experience to judge between them.

The glutton, which is fo called from its voracious appetite, is an animal found as well in the north of Europe and Siberia, as in the north parts of America, where it has the name of the Carcajou. Amidft the variety of defcriptions which have been given of it, no very juft idea can be formed of its figure; and indeed, fome naturalifts, among whom was Ray, entirely doubted of its exiftence. From the beft accounts, however, we have of it, the body is thick and long, the legs fhort; it is black along the back, and of a reddifh brown on the fides; its fur is held in the higheft eftimation, for its foftnefs and beautiful glofs; the tail is bufhy, like that of the weafel, but rather fhorter; and

its legs and claws better fitted for climbing trees, than for running along the ground. Thus far it entirely resembles the weasel; and its manner of taking its prey is also by surprize, and not by pursuit.

Scarce any of the animals with short legs and long bodies, pursue their prey; but, knowing their own incapacity to overtake it by swiftness, either creep upon it in its retreats, or wait in ambush, and seize it with a bound. The glutton, from the make of its legs, and the length of its body, must be particularly slow; and, consequently, its only resource is in taking its prey by surprize.. All the rest of the weasel kind, from the smallness of their size, are better fitted for a life of insidious rapine than this; they can pursue their prey into its retreats, they can lurk unseen among the branches of trees, and hide themselves with ease under the leaves: but the glutton is too large to follow small prey into their retreats; nor would such, even if obtained, be sufficient to sustain it. For these reasons, therefore, this animal seems naturally compelled to the life for which it has long been remarkable. Its only resource is to climb a tree, which it does with great ease, and there it waits with patience until some large animal passes underneath, upon

which it darts down with unerring certainty, and destroys it.

It is chiefly in North America that this voracious creature is seen lurking among the thick branches of trees, in order to surprize the deer, with which the extensive forests of that part of the world abound. Endued with a degree of patience equal to its rapacity, the glutton singles out such trees as it observes marked by the teeth or the antlers of the deer; and is known to remain there watching for several days together. If it has fixed upon a wrong tree, and finds that the deer have either left that part of the country, or cautiously shun the place, it reluctantly descends, pursues the beaver to its retreat, or even ventures into the water in pursuit of fishes. But if it happens that, by long attention, and keeping close, at last the elk or the rein deer happens to pass that way, it at once darts down upon them, sticks its claws between their shoulders, and remains there unalterably firm. It is in vain that the large frighted animal encreases its speed, or threatens with its branching horns; the glutton having taken possession of its post, nothing can drive it off; its enormous prey drives rapidly along amongst the thickest woods, rubs itself against the largest trees and tears down

the branches with its expanded horns; but ſ its inſatiable foe ſticks behind, eating its neck and digging its paſſage to the great blood-veſſels that lie in that part. Travellers who wander through thoſe deſerts, often ſee pieces of the glutton's ſkin ſticking to the trees, againſt which it was rubbed by the deer. But the animal's voracity is greater than its feelings, and it never ſeizes without bringing down its prey. When, therefore, the deer, wounded, and feeble with the loſs of blood, falls, the glutton is ſeen to make up for its former abſtinence, by its preſent voracity. As it is not poſſeſſed of a feaſt of this kind every day, it reſolves to lay in a ſtore to ſerve it for a good while to come. It is indeed amazing how much one of theſe animals can eat at a time! That which was ſeen by Mr. Klein, although without exerciſe or air, although taken from its native climate, and enjoying but an indifferent ſtate of health, was yet ſeen to eat thirteen pounds of fleſh every day, and yet remained unſatisfied. We may therefore, eaſily conceive how much more it muſt devour at once, after a long faſt, of a food of its own procuring, and in the climate moſt natural to its conſtitution. We are told, accordingly, that from being a lank thin animal, which it naturally is, it then gorges

such quantities, that its belly i diste d its whole fig re seems to alter. Thus raciously it continu s eating till, incapable a other animal function, it lies totally torp d by the imal i has killed; and in this situation continues for two three d ys. In this loathsome and helpless state it f ds it chie pro tection from its horrid smell, which few animals care to come near *; so that it continues eating and sleeping till its prey be devoured, bones and all; and then it mounts a tree, in quest of another adventure.

The glutton, like many others of the weasel kind, seems to prefer the most putrid flesh to that newly killed; and such is the voraciousness of this hateful creature, that, if its swiftness and strength were equal to its rapacity, it would soon thin the forest of every other living creature. But, fortunately, it is so slow that there is scarce a quadrupede that cannot escape it, except the beaver. This, therefor, it very frequently pursues upon land; but the beaver generally makes good its retreat by taking to the water, where the glutton has no hance to succeed. This pursuit only happe s in summer; for in the winter all that remain is to attack the beaver's house, as at that tim it never stirs

* Linnæi Syst. p. 67.

from hom[damaged]. This attack, however, seldom succeeds; for the beaver has a covert way bored under the ice, and the glutton has only [the] trouble and disappointment of sackin[g an em]pty town.

A life of necessity generally produces a good [f]ertile invention. The glutton, continually p[re]ssed by the call of appetite, and having neither swiftness nor activity to satisfy it, is obliged to make up by stratagem the defects of nature. It is often seen to examine the traps and the snares laid for other animals, in order to anticipate the fowlers. It is said to practise a thousand arts to procure its prey, to steal upon the retreats of the rein-deer, the flesh of which animal it loves in preference to all others; to lie in wait for such animals as have been maimed by the hunters; to pursue the isatis while it is hunting for itself; and, when that animal has run down its prey, to come in and seize upon the whole, and sometimes to devour even its poor provider; when these pursuits fail, even to dig up the graves, and fall upon the bodies interred there, devouring them bones and all. For these reasons, the natives of the countries where the glutton inhabits, hold it in utter detestation, and usually term it the vulture of quadrupedes. And, yet, it is extraordinary enough, that, being

ſo very obnoxious to man, [...] ſeem to fear him *. We are told by Gamelin of one of theſe coming up boldly and calmly where there were ſeveral perſons at work, without teſtifying the ſmalleſt apprehenſion, or attempting to run until it had received ſeveral blows, that at laſt totally diſabled it. In all probability it came among them ſeeking its prey, and, having been uſed to attack animals of inferior ſtrength it had no idea of a force ſuperior to its own. The glutton, like all the reſt of its kind, is a ſolitary animal; and is never ſeen in company except with its female, with which it couples in the midſt of winter. The latter goes with young about four months, and brings forth two or three at a time †. They burrow in holes as the weaſel; and the male and female are generally found together, both equally reſolute in defence of their young. Upon this occaſion the boldeſt dogs are afraid to approach them; they fight obſtinately, and bite moſt cruelly. However, as they are unable to eſcape by flight, the hunters come to the aſſiſtance of the dogs, and eaſily overpower them. Their fleſh, it may readily be ſuppoſed, is not fit to be eaten; but the ſkins amply recompenſe the hunters for their toil and danger. The fur has

* Buffon. † Linnæi Syſtem. p. 67.